

HISTORY OF MANKIND
CULTURAL AND SCIENTIFIC DEVELOPMENT

VOLUME III

THE GREAT MEDIEVAL CIVILIZATIONS

INTRODUCTION; PART ONE;

PART TWO: SECTION ONE

HISTORY OF
MANKIND
CULTURAL AND SCIENTIFIC
DEVELOPMENT

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THE GREAT
M EVAL
CIVILIZATIONS

INTRODUCTION; PART ONE; PART TWO: SECTION ONE

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INTRODUCTION

ON the long road leading to the rapprochement of the world's cultures and civilizations, the period covered by this volume, extending from about A.D. 400 to 1300 (dates which must be taken as very approximate) corresponds to a real though uneven advance, and one which still leaves a great distance to be travelled.

The world remained shared between a series of major civilization blocs between which communications and relationships were negligible. Yet it should be noted that the chronological limits chosen for this volume correspond to important events which affected several of these blocs in common: those which will be studied here most closely on account of their cultural level and of the abundance of information we possess about them.

Moreover, within each of these blocs powerful forces of unification were at work. Not only (the most immediately apparent aspect) did vast religious domains come into being, more or less united by a community of faith and practices, and even by common structures; but also technical progress, population growth, and the development of trade speeded up and intensified relationships between human beings. It is true that in a number of places, the resulting collective awareness gave rise to 'national' cultures placing special emphasis on the uniqueness of the people concerned.

All these forces, whose effects can be followed within each of the main civilization blocs, impelled human beings to strike out beyond the confines of those civilizations. Travel between China and India, the Mediterranean world and Europe became more frequent, though it was still slow and perilous. Merchandise and ideas really began to flow between one part of the world and another. An end began to be seen to the isolation of Africa, and perhaps even that of America. The time of the 'great discoveries' was not far off.

The World from A.D. 400 to 1130

Suppose it were possible to establish with certainty and accuracy what a map of the world looked like about the year A.D. 400, the date chosen as the starting-point of this volume.

Scanning this Eurasiatic map from east to west, we begin with China. China was at that time one of the poles of the Ancient World. The Han dynasty (third century B.C. to third century A.D. had given its unified empire an influence extending beyond the frontiers of Asia. But despite this unification, the major regions retained specific characters which favoured fragmentation. The cradle of Chinese civilization, the Yellow Plain, had always been the centre of economic power. An ingeniously irrigated land given over to cereal

cultivation, it had made the fortune of all who had dominated it and given northern China cultural predominance over the rest of the country. Southern China however, newly conquered by the Hans, was to become a serious competitor and subsequently, thanks to its rice, gained national predominance. It was about the fourth to sixth centuries that the economic and social structures emerged which were to make southern China a new factor in Chinese history. The emergence of this counterweight, the advent of this hilly region of China, rich in natural resources, in contrast to the China of the plains, widened the stage on which the destiny of the peoples of eastern Asia was to be enacted. About the year 400, the Chinese continent was thus divided into two, historical divisions underlining geographical divisions: a 'legitimet' southern China, which in any case was the guardian of Chinese culture and originality, and northern China, which had for long been fragmented and as it were slanted towards central Asia.

Around China, as around a privileged core, a great number of peoples gravitated; they were differently organized, and their political and cultural levels varied from region to region. Up to the end of the third century, the Indo-Chinese peninsula in the south was under the Chinese yoke. The same was true of the Korean peninsula in the east. In Japan, independent tribes, under the influence of China and through the intermediary of Korea, transformed their primitive economy into an agricultural economy and set up the country's first states. To the west, principalities grew up along the silk route whose alliances ensured the security of communications as far as the Mediterranean; while the Tibetan plateau, inhabited by troublesome mountain peoples, separated China from India. And along the entire northern frontier stretched the immense ribbon of the steppes, inhabited by nomadic and pastoral tribes referred to as 'barbarians' and whose relationships with China were to dominate events.

In the fourth century these barbarians, increasing their pressure, invaded the whole of northern China and weakened the imperial power, leading to independence movements in Korea and Indo-China and, from the Mongol steppes to the Caspian, causing changes in barbarian confederations whose effects were cruelly felt in central Asia and throughout Europe.

As for the Indian sub-continent, its destiny no less depended on natural regions. It is convenient to make a distinction between the peninsular triangle, bordered on two sides by the sea, and the northern quadrilateral mountain region backed by the barrier of the Himalayas. These two areas may be referred to respectively as Deccan and Hindustan. The latter was itself crossed by two main routes which divided it into two main regions. The basin of the Ganges was the melting-pot where at all periods of history influences from the north-west were assimilated into the Indian cultural heritage. It is worth noting that in the account of his travels, Hsuan-tsang gives a description of India as a whole on his arrival at Prayāga; on reaching Yamunā, the traveller entered a more Indian land.

To the two main geographical regions there corresponded two human groups which can be identified on the linguistic map. The north was the domain of Indo-Aryan languages derived from Sanskrit; the south was the domain of Dravidian languages, the Munda languages having scarcely any statistical importance, and still less cultural importance. We see immediately that Hindustan overlapped with Deccan; the Mahrante country to the west (south of the Vindhya Mountains) and Orissa to the east were lands of transition where Indo-Aryan dialects were spoken. The Dravidian country did not begin until further south, and covered only the southern half of Deccan, while the Kanar and Telegu countries were profoundly Aryanized. Only the Tamil country, though it had been penetrated at a very early date by Aryan influence, preserved the traits of a highly original civilization, expressed in particular in a rich and ancient literature.

It was from the Ganges land of Magadha, home of Buddhism and of the Maurya dynasty, that another dynasty set out for the conquest of India in 319. Not content with conquering the Ganges basin, Samudragupta made a military sortie across Deccan as far as Kâñchī and received tribute from the sovereigns of the regions around the Ganges basin, including those of Natal and Assam. His son Candragupta II, who reigned in 400, added to the possessions inherited from his father the territories which he snatched from the great satraps of Ujjein: Malva, Gudjarāt and Saurāshtra (Kāthiāvār). But the Gupta did not aim to administer directly the territories located to the south of Nabadā and Mahānadi. Samudragupta restored the kings of the south after having 'uprooted' them. Candragupta was content to make a matrimonial alliance with the dynasty which reigned over the Mahārāshtra.

It was not Indian unity, but the concept of universality which was covered by the pseudo-imperial title of 'sovereign of the disc' (*cakravartin*); it was given a territorial and a geographical significance which it had not always implied. This effort to bring Indian territory under a single power was due to a sovereign from the north; the presence on the frontiers of the *Mleccha*, the barbarians, gave the sovereign of Hindustan a concrete idea of the limits of the Indian world, which a king of the south could not discern on the horizon. The Tamil sovereigns had other ambitions; their eyes were turned seawards. For a Cola, universal sovereignty meant the entire coastline of the Bay of Bengāl as far as Malaysia and Sumatra.

At the other extremity of Eurasia, developments seem to have been very different. Around the island-dotted *Mare Nostrum*, which was so convenient for the circulation of merchandise, men and ideas, the Romans had established a powerful empire. They did not succeed in reducing the duality of cultures—the Hellenic culture in the east and the Latin culture in the west—which were based on different languages, mentalities and intellectual achievements. When under the external pressure of the barbarians from the third century A.D. onwards, the tasks to be accomplished took on such proportions that two heads, Rome and Constantinople, had to be given to this great body, the traditional

superiority of the eastern part clearly re-emerged, and was the germ of future schisms.

When they moved away from the sunny shores of the Mediterranean, the Romans felt more and more out of their element. Despite the efforts of their legions and despite the route which they established, they did not succeed in imposing their domination either on the damp and misty forests of Germany or on the burning deserts of Syria, Arabia, Libya and the Sahara. Thus beyond the limits of Romania extended regions where enemies massed who finally destroyed or overthrew a great part of the Roman Empire. Meanwhile the economy, techniques, languages and even certain ideas which developed in this 'Roman' world exerted their influence. The rest of the world consisted of the Celtic countries, central and northern Europe peopled by the Germans, and eastern Europe, which was progressively occupied by the Slavs (we have to use modern terms to designate these regions, which had not at that time acquired their individuality). On the eastern frontiers, the kingdom of the Parthians, after having inflicted some of their most crushing defeats on the Roman legions, merged into the Sassanid empire, which from the Indus to Sogdiana and Armenia had built up a powerful domination and even claimed universal sovereignty. Between the Sassanids and the Romans, the final clash was ineluctable. On the other hand, an observer—even possessing resources as yet unknown in 400—would doubtless have paid little attention to the nomadic tribes who gravitated from the fertile Turkish empire to the southern shores of Arabia; it was there, nevertheless, that a power was to form which would take advantage of the mutual weakening of the Romans and the Sassanids and launch a formidable ground swell. In Africa, the Roman domination was on the defensive against specifically African elements; in what is now the Maghreb, in particular, riddled by the incessant penetration of Moorish nomads, the Roman domination was practically confined to the coastal plains.

Such a relatively accurate picture cannot be drawn for the 'other worlds': Africa, the Americas and Oceania, where the situation was much more complex and changing, and about which we know much less.

History and Chronology

The chronological division of the contents of this volume has been made mainly in function of Eurasia. The authors are not responsible for this, yet they have accepted it. What are its justifications?

As a point of departure, Europeans will immediately think of the night of 31 December 406, when the barrier of the Rhine was forced by tribes of Vandals, Suevians and Alans who were to spread throughout the Roman Empire. This was 'the wound from which it was never to recover' (F. Lot). It is usual to date from this period of major migrations of peoples (*Völkerwanderung*) the beginning of a new historical period to which, at the end of the seventeenth century, the German popular writer Christopher Keller gave the

name 'Middle Ages'. What he meant by this was that these were essentially centuries of transition between two major intellectual eras: Greek and Roman antiquity, and the Renaissance of the sixteenth century. This conception implied a very pessimistic view of this obscure intermediate period, bloodied by the convulsions of 'feudalism' and held in the grip of ignorance and superstition by 'sacerdotal tyranny' (Condorcet). This conception gained widespread acceptance, and towards the middle of the nineteenth century the French historian Michelet gave the expression 'Middle Ages' its patents of nobility.

Since then it has been held in question, and our knowledge has advanced. It seems to us somewhat vain today to 'periodize' in the light of judgments of value, to assign higher or lower marks to centuries like a schoolmaster assigns to his pupils. It is preferable to confine ourselves to distinguishing major periods by an analysis, as objective as possible, of the components of civilization. In this respect, the advent of Christianity was a fundamental occurrence, and it seems reasonable to date the gradual birth of a new era between 325, date of the Nicene Councils, and the year 406 referred to above.

Nevertheless, and for analogous reasons, reference must be made here to the views brilliantly put forward by the great Belgian historian Henri Pirenne. In his view, the vast migrations of the fifth century did not have a profoundly adverse affect on the nature of the Roman Empire. It was the Arab conquest, launched following the death of Mohammed, which radically transformed the historical scene and put a stop to Mediterranean trade. From that time on, the Roman Empire in the east became the Byzantine Empire, and the west withdrew into itself. These views have been abundantly disputed. They possess the merit of stressing the importance of the Arab conquest. The creation of the Moslem world was a capital phenomenon, which modified the physiognomy of the whole world and which introduced a permanent new component.

But to what extent can these phenomena justify a chronological division covering the whole of Eurasia? We must first of all remember that the forcing of the Rhine in 406 was part of a chain reaction whose origin is to be found in Asia. As early as the fourth century, the advance of the Huns westwards and the advance of the T'o-pa towards the east triggered a series of population movements whose repercussions were felt in China and as far as north-western India.

Henceforward, China was literally haunted by the problem of the barbarians. Already in the third and fourth centuries, the Hiung-nu and the Sien-pi had exerted heavy pressure on China. Subsequently, on two occasions, barbarian tribes mobilized all China's military resources: the confederation of the Juan-Juan (fifth century) and the Tu-Kiu kingdoms (sixth century). On three occasions, the southern half of the country was occupied: in the fifth century by the T'o-pa Wei, in the tenth century by the Kitan Liao, and in the twelfth century by the Jurchen Kin. In the thirteenth century, the whole country passed into the hands of the Yuan Mongols. From 386 to 1386, during a thousand years of harassment, only the T'ang maintained an empire for nearly

two centuries (from the seventh to the tenth); and it was weakened half the time by revolts and disturbances. Then the Sung were partially occupied (twelfth century), and subsequently half invaded (thirteenth century), before being entirely submerged in the fourteenth century. In all this, the years around 1300 may be considered to correspond to the maximum extension of Mongol domination. It is remarkable that in the course of these storms, interspersed with bright intervals, economic, social and political forces managed, despite everything, to ensure an almost continuous cultural and scientific development.

Where India is concerned, stress must be laid on its lag behind the development of world history, a lag due to its relative isolation. About 1400, Indian civilization was at its apogee. A general description has been given in Volume II of this Gupta era, which is unanimously considered as the most brilliant in the whole history of India. Here we shall take the year 550 as our starting-point, or more precisely 533: a crushing defeat inflicted on the Hun king Mihirakula by Yaśodharman, king of Mandasor, led to the collapse of the power of the Huns, who were established in the north-west. India then licked its wounds and took up the threads of the past without too much difficulty. But the political unity conceived by the Gupta had disappeared. India retained a nostalgia for it, without being able to impose a cultural unity on the political level—a cultural unity which was profound as well as richly diverse. A heavy price was paid for internal discords, which led to a quasi-feudal fragmentation. The Arab expansion hardly touched India under caliph Walid (707–15). Mohammed Kāsim conquered the Sind in 692 to 711. The Moslem conquest of India came later, and was due to the Turks of Afghanistan: from 986 to 1026 first of all, in the course of Ghaznavid incursions; then from 1190 to 1202, in the course of Ghurid enterprises; and finally with the conquest of Deccan, undertaken in 1294. In 1310, the whole of India with the exception of Kāthiāvār, a part of Orissa, the Paṇḍya country in the extreme south, and Ceylon, had fallen under foreign domination.

Nevertheless, the Mongol invasions were repulsed by a Turko-Afghan prince, Alā ud-Diñ, in 1296, 1298 and 1304. Only Kāshmir suffered severely. The enterprises of Qubilāi in South-east Asia had more serious consequences. In 1282, Jayavarman VIII repulsed an attack on Cambodia; in 1283–5 Champā was invaded, and subsequently the Mongols were chased out by the Vietnamese. In 1292–3, a Chinese fleet commanded by a Mongol, an Uyghur Turk and a Chinese encountered some success in Java. But most important of all, Burma was invaded and the city of Pagan was taken in 1287. For several years, northern Burma became a Chinese province. This weakening of Burma favoured the emancipation of the Thai tribes in the Menam basin and the region lying between Yun-Nau and Burma. This emancipation had begun early in the thirteenth century. Rāma K'amhēng, who was the true founder of Thai political power, had contracted an alliance with two other Thai chiefs in the same year that Pagan was taken. He was a great conquerer, who gained

control of the Malay peninsula and drew inspiration from the Mongol organization to administer his states. The year 1300, with the weakening of Burma, Cambodia, Champā and Java (where the Mojopabrit kingdom emerged), the disappearance of Çrīvijaya and the institution of Thai power, thus marked the end of an era, just as 1310 did for India.

We may date the apogee of the Moslem world in the tenth century, when Arab control of the Mediterranean and its environs was at its height. But already its future decomposition was heralded by the opposition between three rival caliphates. In the eleventh century the Moslem world was also subjected to major invasions, those of the Berbers and especially of the Turks. It was the Turks, from then on, who caused vigorous powers to emerge (like the Mameluke sultans of Egypt), or who took over the cause of Moslem expansion eastwards. However, the Mongol conquest overthrew the Abbassid Caliphate of Baghdad (1258), and occupied the plateau of Iran. The cultural supremacy of Islam was finished. But despite political opposition, religion remained a powerful factor of solidarity, as it still is in the twentieth century.

In Europe, the Middle Ages, as defined above, continued at least until the middle of the fifteenth century. However, though economic historians have highlighted the phase of prosperity and expansion through which western and central Europe had passed since the eleventh century at least, they have also indicated that in many respects this expansion was coming to an end, or at least slowing down, around 1300, to give way to a period of contraction and crises. These conclusions are still the subject of discussion, but they may provide some justification for the chronological order of this volume.

In 1300, the Roman Empire still existed. But this prestigious name no longer even concealed profoundly transformed realities. The empire covered no more than a small part of Christendom. Its two halves, eastern and western, were henceforward almost totally separated. The Greek empire, re-established in Constantinople, dominated only modest territories, and it entered the long period of agony which terminated tragically with the entry of the Turks in the ancient capital on 29 May 1453. The Germanic Holy Roman Empire was to survive until 1805, but it bore little relationship to the empire of Augustus or even of Constantine, and the emperor's main asset was the prestige conferred on him by a venerable institution.

The reality which counts here much more than this noble myth is Europe. This reality was born in the period covered by this volume. The British Isles, together with the Germanic, Scandinavian and Slav countries, were henceforward included in a major civilization bloc characterized by a common religion as well as by a common art, literature and thought, and common traits of language. European civilization was born, and its enrichment and expansion were to dominate the history of the world for several centuries.

History and Source Materials

Within the geographic and chronological limits which we have defined,

history cannot everywhere be written in the same way. A brief comparison of source material available to historians today is necessary, for it alone can explain to the reader disparities which might surprise him. In itself, moreover, it is revealing; every civilization possesses its own material.

Doubtless nothing can compare with the extraordinary richness of the material carefully gathered by the Chinese administration.

From antiquity onwards, history in China formed the material for one of the three most ancient classics, Chou-king's *Book of History*. The historical genre was completed with the work of Ssu-ma Ch'ien (145-85 B.C.) and henceforward constituted one of the fundamental categories of Chinese literature.

Dynastic histories are also valuable sources where the period we are dealing with is concerned. But we must remember that the historical bureau of each dynasty wrote the annals of the preceding dynasty. Thus they were conceived as an ensemble of references designed on the one hand to legitimize the reigning dynasty and on the other hand to serve as a manual for men of letters. In addition to the succession of historical events corresponding to the succession of emperors, these annals included a large section devoted to monographs on laws, rites, economics, astronomy, institutions and customs, as well as the biographies of famous men and women. Parallel with the dynastic histories, numerous works—especially from the T'ang dynasty onwards—dealt with history methodologically, but were still inspired by the desire to serve the needs of bureaucracy. Collections of documents—published documents of official texts—were also periodically constituted to serve as reference works. These documents are far from having been thoroughly sifted and exploited. In the first place, because they often present difficulties of interpretation due to the language or the interpolations of copyists; secondly, because they often consist of successive quotations from abridged documents. Fidelity to their great predecessors and a leaning towards traditionalism led historians to repeat previous opinions. But this habit of quoting, often adopted through a desire for edification rather than for explanation, did not always take account of the reality of facts. Great patience and sagacity are necessary to reconstitute historical data reliably.

In this task, the historian is aided by a great number of oblique sources. These include encyclopaedias in which are to be found, in many cases, material complementing abridged texts, local monographs and the like, giving a fuller picture of the facts in question, and above all accounts of travels and literary texts whose contents constitute an inexhaustible source of true facts which have been objectively noted, for purposes totally foreign to those of historians. Here, as in other fields, archaeological research makes it possible to throw new light on facts which up to the present we have known only through written material.

For the period with which we are dealing here, there does not at present exist any general depot of archives in Japan, for old documents are in the possession of private owners. On the other hand, there exists a depot of

archives for documents relating to the history of the court (*Koshitsu shi*), but they come within the jurisdiction of the imperial court and are consequently difficult of access. Private archives which are scattered among leading families or in religious shrines are beginning to be catalogued, but the exploitation of their contents is still in its beginnings.

Existing documents of historical interest have been gathered in specialized libraries (*bunko*) where they may be consulted. Moreover, numerous centres contain documents relating to historical events and economic history (*monjō*). Published documents refer to historical material (*shiryō*) and often cover, without distinction, annals, personal documents, miscellaneous collections and even literary texts. The publication of these documents dates back to the beginning of the nineteenth century. The mass of official and private sources is gradually being published by major collections. Numerous other encyclopaedic works or local monographs, travel diaries or biographies, provide the complementary documentation which is essential to an understanding of Japanese history. Here, as in the case of Chinese sources, difficulties arise as a result of the obscurity of certain texts and our lack of knowledge of a great number of technical terms. There remains all the parallel material provided by collections of laws, religious texts and literature as a whole, without forgetting works of art and archaeological remains, which can throw additional light on the texts themselves.

Though China, as well as its Korean and Annamite neighbours, together with Japan, possess an important historical literature, the same is not true of the nomadic world. The barbarians (by definition) have left us scarcely any written material, and we can trace their history only through their Iranian, Indian and especially Chinese neighbours. Since the beginning of the twentieth century, and more particularly over the past twenty years, it is to archaeology that we owe a large part of our historical reconstitutions. From the Black Sea to the Pacific, our Soviet colleagues have succeeded in discovering numerous cultures which flourished along the forest routes and along the routes of the steppes. A great deal still remains to be done to compare the results obtained by archaeologists with those obtained by historians, but the gulf which formerly separated them is narrowing and soon we will be able to have a relatively precise image of all the societies of central Asia and Manchuria.

Where India is concerned, there is nothing to compare with the wealth of information we possess about China. It would be paradoxical to claim that a knowledge of Arabic or Chinese is more useful to the historian of India than a knowledge of Indian languages, yet foreigners who have visited India and have cast a fresh and surprised eye on the different aspects of Indian civilization provide us with essential testimony. In most cases, astonishment is tinged with admiration and enthusiasm, even on the part of Moslem observers. Fa-Hien, Hsuan-tsang, and Al Biruni, without forgetting Marco Polo and—for Cambodia at the very end of the thirteenth century—Tcheouta-kuan, are the most valuable sources of information.

True, interest in contemporary events, which such authors did not judge unworthy of being described in literary form, was one of the characteristics of the period. The fine panegyric of Samudragupta by Harisena was an inscription. The life of Harshavardhana of Kanauj was the subject of a book by Bāṇa, which in reality was not very close to historical truth. The dynastic chronicles, some of which have come down to us, were not historical works properly speaking. The only Indian historian worthy of the name was the Brahmin Kalhaṇa, author of the magnificent *River of Kings* (of Kāshmir). Kāshmir, geographically somewhat on the fringe, but so important for the development of literature and philosophical and aesthetic thought and for the expansion of Buddhism in the direction of Tibet, is consequently the best known of Indian provinces.

Where other regions are concerned, practically all the historian has available are inscriptions on stone or copper written in Sanskrit and in other languages, chief among them Tamil, the second Indian cultural language, followed by Kanarian, which provides a very remarkable body of information; and outside India, ancient Khmer. But in northern India many inscriptions were destroyed by the Moslems, along with the monuments on which they were engraved.

The study of the Arab world is made difficult by the almost total absence of archives. On reflection, this is really understandable. Apart from the state itself, there actually existed no organized authority, neither clergy nor urban communities. What a contrast to the irreplaceable ecclesiastical and municipal records which are available for the study of the history of medieval Europe! The state itself possessed its archives, but since the caliph did not make the laws, their preservation appeared to be of little interest, and every time the dynasty changed they were destroyed. This unfortunate lacuna is only partially compensated by the very great abundance of narrative sources. At a very early date there appeared a whole literature of historical novels and *hadith* (short accounts of an act or a pronouncement of Mohammed). Subsequently came annals and chronicles, travelogues, anthologies and collections of anecdotes. There remains the task of subjecting this mass of material to a critical analysis, making a distinction between original sources and posterior compilations, detecting borrowed material and repetitions, and clearing the ground for the historian. Archaeological sources (epigraphy, numismatics and archaeology proper) have not yet received systematic treatment either.

The same lacunae are not quite so marked in Byzantine source material, though here again a large part of the administrative archives have disappeared, either in the course of time or through negligence, or again in the final collapse of the empire. But since the emperor made the laws, legal writings here play an essential rôle. Moreover, there is a whole mass of ecclesiastical archives. Inscriptions, seals and coins also exist in abundance, and Byzantine archaeology has already produced very important results. However, failing good editions or translations, or scientifically compiled catalogues, 'half the material capable of establishing the history of Byzantium remains to be discovered or

rediscovered', according to Paul Lemerle, an authority on the subject. The result is that here again we depend too often on narrative texts which are numerous, extremely interesting and in some cases admirable, but which due to their habitual attachment to traditions risk giving a false picture of an empire frozen in a majestic immobility. To gauge the falsity of this 'myth' we must have recourse to practical material.

European material is seen to be of quite average value, but fairly well balanced, and what is more it has been subjected to a modern critical elaboration probably never before equalled. It was not until the thirteenth century that archives really began to be built up and organized; but recent classification, critical analysis and publication make it possible to take full advantage of what remains. Sound works which have been written over the past century or so provide an almost complete list of narrative sources, and all the elements necessary to assess their value and scope. We regret only that because of the limited spread of education, which was practically confined to the clergy until the twelfth century, our information rests essentially on ecclesiastical material or the writings of clerics, and this obviously affects the nature and the significance of such information. Archaeology in its various forms has been very thoroughly exploited; it is true that the relatively early date of a great deal of research is reflected in an imperfection of methods which it is no longer possible to compensate today. And the inadequacy of the results obtained concerning the earliest of the periods we are concerned with here—let us say the early Middle Ages, from the fifth to the tenth centuries—has led to the burgeoning of the auxiliary sciences of great interest: toponymy, the study of soils and plant formations, aerial photography, and so on.

Moreover some of these auxiliary sciences must serve for the study of 'other worlds' in respect of which so many of the sources referred to earlier are lamentably inadequate. But their utilization is still in its infancy, and doubtless will never be able to compensate for the absence, in varying degrees, of written sources. Which is why this study does not allow us to hope for results comparable to those which the historian has obtained for Eurasia. This is one of the chief reasons, among many, which have led us to insert this study in Part Three of this work.

The work of critical elaboration which is being developed everywhere nowadays will thus contribute to a rapprochement of the situations in question; it will not, however, enable us to overcome the contrast between regions which possess or do not possess narrative sources, archives and archaeological references. The consequence is not only a quantitative inequality of information. Historians cannot ask themselves the same questions everywhere, and above all they cannot reply to them everywhere.

The Spread of Great Religions

The expansion of a number of great religions, more or less strongly established over considerable areas, is one of the features which emerges most

strikingly from even a superficial examination of the period with which we are concerned here. About 1300—to cite only the principal religions—Buddhism, Hinduism, Islam and Christianity covered immense regions of the world which, though they overlapped to a certain extent, tended rather to be juxtaposed. Such was by no means the case about 400, when Islam had not yet come into being. And without doubt, in each of the geographical areas, religious life pervaded and dominated most of the aspects of political life and of the civilization in question—in various ways, but always intensely and profoundly. It is therefore worth reflecting at this point on this doubly important phenomenon: important in itself, and in respect of the powerful factor of unification which it represented.

This period corresponded, for the Chinese world, to a prodigious philosophico-religious effervescence, constantly fed and re-invigorated by the various doctrines which came to China via central Asia, along the caravan routes.

China's ancient heritage was a double one: Confucian thought, traditionalist, political, social and metaphysically agnostic, was in opposition to, or rather alternated with, a mystic, cosmic Taoism which praised life in all its forms, but which became increasingly immersed in magic or preoccupied with simple dietary recipes.

So it was on this rather anaemic basis that Buddhism—already introduced in the first century A.D.—imposed itself as a third force. For about a century (the fifth) the whole of east Asia, from India to the Pacific, adhered to the same faith. Buddhism, which first infiltrated into China thanks to a superficial assimilation with Taoism, soon became strongly established, more and more profoundly inspired by Mahayanist tendencies and materially and spiritually favouring a social liberation of the individual. This was accompanied by an erudite and conscientious study of texts which were the result of secular meditation in Indian monasteries and which reached China in large numbers. Under the influence of the celebrated Kumārajīva, a long task of translation began. From the sixth century onwards, the Chinese world became the new home of Buddhism, which was on the decline in India. But the excess of prosperity soon made Chinese Buddhism an all-embracing temporal power which threw the economy of the empire out of balance. Its wealth was therefore the cause of its downfall, and the severe proscription of 845—coinciding, moreover, with the conquest of central Asia by Islam—reduced the sphere of action of Buddhism to Tibet and Japan.

Parallel with Buddhism, and particularly when the latter fell into passing disfavour, T'ang China—so open to the outside world—was also invaded by all forms of Iranian religions, such as Zoroastrianism. This phenomenon re-occurred under the Sung with the introduction of Nestorian Christianity and the Islamization of the north-western confines of China.

For the whole period covered by this volume, the eclecticism and the tolerance of the Chinese with regard to foreign religions (in practice, proscriptions affected only the material institutions constituting states within the state) made

China at that time an intense spiritual centre. True, religious trends contributed to the renaissance of national thought which flowered under the Sung, but religious thought henceforward was superseded by philosophical thought, and its influence gradually diminished except in Tibet and Mongolia, where Lamaism helped to establish theocracies, and in Japan, where Buddhism for long remained the principal spiritual force.

In India, Buddhism, which had been severely shaken by persecutions, declined after the invasions of the Huns, as did Jainism. In the third century it no longer existed outside Nepāl and Ceylon except in surviving forms, while Jainism held its position strongly, especially in Gujarāt. But in the previous era, Buddhism had reached central Asia and China. Though it was now banished from central Asia as a result of the conversion of the Turks to Islam, it continued to exist throughout external India, first in the form of the Small Medium, and subsequently, from the eighth century onwards, thanks to the influence of the great Magadhian universities, in the form of the Great Medium. Tibet was converted in two stages: from the seventh to the ninth centuries first of all, then after a persecution which almost eliminated it, from the year 1000 onwards. But while Lamaism remained, despite events, the unique religion of the Tibetans, and later of the Mongols, Islam was to infiltrate Indonesia from 1300 onwards following the Mongol invasions. The Great Medium disappeared from Indian south-east Asia, but was replaced from Burma to Cambodia by Sinhalese Buddhism, already firmly established in Burma.

Hinduism, which abhorred contact with barbarian peoples and which in principle forbade those who had been 'born twice' to cross the seas, became none the less solidly established in South-east Asia and Indonesia once the way had been opened up by Buddhist missionaries and traders. It was Hinduism which gave the Indianized kingdoms (they have even been described by Coedès as 'Hinduized') their political, social and judicial structure. In short it was, even more than Buddhism, the civilizing element in this part of the world, where traces of it still survive, not only in Bali, but for example in Cambodia, where the royal baptism is still performed by Brahmins. In India itself, it contributed substantially to preserving the sentiments of Indian unity over and above particularisms which, especially in Deccan, led to a linguistic nationalism. Thanks to Çankara, it received a monastic organization covering the whole of Indian territory: four university convents were set up by the great philosopher at the four cardinal points of India.

No less important, though very different, were the predications of Rāmānuja and the love lyric of the Dravidian 'saints'. There developed throughout India movements of intense piety for great divine figures: Śiva, Viṣṇu (in the form of Krishna or Rāma) and Çakti, a female personalization of creative and salvational energy. These cults of love were subsequently the great force which opposed Islam, while at the same time sometimes inviting the latter to combine with them in the unique love. But at the same time reactions against a narrow ritualism and against the Brahmin socialization were already appearing; the

Liṅgāyat movement, for example, revealed tendencies on the social level which it is no exaggeration to describe as revolutionary.

By 400, Christianity was already several centuries old. Its dogmas were clearly defined. The organization of its clergy was to a large extent fixed. Its geographical coverage was already considerable.

As stated in the previous volume (Volume II, pp. 847–57), Christianity was mainly founded on an historic event: the life of Jesus Christ in Galilee and Judaea, His teaching, His Crucifixion—and on the lessons to be drawn from it. Jesus Christ being the human incarnation of the Son of God, God Himself, the equal of His Father, who sent Him to earth to redeem men, who were blighted by original sin. Through His sermons and miracles, He revealed the true religion to mankind, through His Passion, Death and Resurrection, He redeemed those who believed in Him and who did their best to follow His example. When He returned to His Father's Kingdom, He sent mankind the Holy Ghost, which was to enlighten and guide them. This teaching was founded on the Gospels, which relate the life and utterances of Christ. It was also related to the whole of the Jewish Old Testament, of which it claimed to be the completion.

In order to give these dogmas their rational expression, the Fathers of the Church, that is to say the bishops, worked on this pattern. They were thinkers, whose writings were considered particularly authoritative in Christian churches. At the beginning of the period covered here, their work appeared to be almost complete. This laying down of dogma was, moreover, not achieved without discussions and divergences. In particular, about 320 a priest of Alexandria named Arius taught that in the Trinity, only the Father is really God, the two other persons, the Son and the Holy Ghost, having been created. It became a custom to settle such discussions at meetings of bishops called Councils or Synods. It was the Council of Nicaea in 325 which departed from the teaching of Arius and laid down a 'formula of faith' expressing the fundamental dogma of Christianity. The condemned doctrine was considered as a heresy (from the Greek *hairesis*: preference, special opinion), a deviation; and its adherents were persecuted.

A clergy appeared at a very early date. In assemblies of Christians or churches, there were men whose special rôle (*kleros* in Greek) was to officiate at services and to administer the Sacraments. The bishops directed the various churches, whose territorial coverages gradually took the name of dioceses. The dioceses themselves were divided into fundamental cells, which came to be called parishes. About 400, the division into parishes was practically complete in the east; in the west, it was in full development. Some of the bishops enjoyed certain authority and honours; such as, in Rome, the successor of the Apostles Peter and Paul, the Pope (that is to say, the Father)—or again the heads of the most ancient churches, all of them 'oriental' (Antioch, Alexandria, Jerusalem, to which was added Constantinople when it became capital of the empire); they were called patriarchs (i.e. heads of families). The bishops of the

most important cities took the title of Metropolitan or Archbishop. Thus was constituted a hierarchy whose internal relationships remained a subject of discussion (as the supremacy of the Pope still remains). Another subject of debate was the celibacy of 'senior' clerics: bishops, priests, deacons and sub-deacons (*diacons*, servant). In addition to 'secular' clerics, that is to say those who lived in contact with the world, there were also men and women who withdrew from the world, and lived in accordance with a set of rules (the 'regulars'). This monasticism, or monachism (from *monachus*, solitary) was already widely practised in oriental Christianity about 400; and it also began to spread to the west.

The list of bishops who attended the Council of Nicaea gives quite a good idea of the expansion of Christianity in the countries surrounding the Mediterranean at the beginning of the fourth century (see map, Volume II, p. 874). However, the western participation in this Council was quite weak. A century later, Christian penetration in north Africa and in Gaul had become accentuated.

This expansion was to continue strikingly and to cover the whole of Europe before 1300. It is true that meanwhile the Moslem conquest almost totally eliminated Christianity from north Africa, and that in the other countries to which it extended it considerably weakened the churches and more or less isolated them from Rome and Constantinople. Except in this latter city, the leading oriental patriarchates lost much of their lustre. The change of balance acted strongly in favour of western Christianity; Rome and Constantinople were rivalling one another in the evangelization of the Slav world.

Thus the Christian world was characterized by the existence of a clergy and a hierarchy. A particular intolerance also appeared; not only did it combat heresy within the Church itself—which led, among other things, to the creation of Christian communities throughout Asia by the exiled Nestorians—but it treated in a very variable and often violent manner Jewish communities which were established in Christian countries, and waged crusades or holy wars against the Moslems.

Islam came into being during the same period covered by this volume. Islam also was a 'religion of the Book', the book in this case being not the Bible, but the Koran, containing the teachings of Mohammed. Its basic dogma was the existence of a single and all-powered god, Allah, and the very word Islam signifies the total submission which every creature owes to him. Like Christianity, Islam is a religion of salvation; the Moslem (a Persian form of the adjective *Muslim*, an adherent of Islam) who asserts his faith and lives a righteous life in conformity with the teachings of the Koran will enter Paradise.

The oppositions between Islam and Christianity are, none the less important. The Koran asserts the unity of Allah in the simplest manner: it fundamentally rejects a dogma such as that of the Trinity, and considers Christianity to be a polytheism. 'Allah does not forgive partners being assigned to Him, whereas He pardons anyone He wishes for sins other than that' (Koran, 4, 51).

The idea of the human incarnation of Allah is absolutely inconceivable for a Moslem. Jesus indeed existed, but he was merely a prophet. The last and the most perfect prophet was precisely Mohammed, but he was by no means a god. He was only the vehicle of 'the writings which Allah caused to descend upon his apostle' (Koran, 4, 135). The Prophet was also the head of the community of the faithful, and because of this he was given a successor, the caliph (*khalifa*) when he died.

At quite an early stage, disagreements on the subject of the designation of the caliph led to divergences between Moslems which soon produced deeper oppositions. The question arose in 657 when the caliph Alî, cousin and son-in-law of Mohammed, was contested by Mo'awia, a member of the great family of the Umayyad of Mecca. While the armies faced one another near the Euphrates, Alî had to have recourse to arbitration, which finally pronounced against him.

When the principle of arbitration was accepted, the most intransigent of his partisans withdrew; these were the Kharijites (meaning 'those who go away'). Subsequently, Kharijism enjoyed great success among certain of the converted like the Berbers. Did it not emphasize the strict equality of all believers, independent of their origin, whether Arab or otherwise? It was also a religion of poor people: ascetic and puritan.

Moreover, Alî does not seem to have accepted the verdict pronounced against him. There subsisted an 'Alî party' (*Shiatu Ali*) which remained loyal to him and his descendants. This Shiism later incorporated other elements. There was the legiticism which held the caliphs to be a dynasty descended from the Prophet, and some Shiites believed from his daughter, Fâtima, Alî's wife. There was also the idea that there existed an allegorical interpretation of the Koran, a more profound and truer interpretation, whose secret was handed down within the Alîd family. According to this conception, the caliph was assigned a very special religious rôle. Shiism was to become split up according to its partisans' more or less complete adhesion to these ideas. In any case, they seem quite foreign to Arab mentality, and it was mainly among the converted that they met with success.

The specifically Arab reaction to these events was Sunnite pietism, founded on tradition (*sunna*) as practised in Mecca and Medina. It emphasized the caliph's obligation to apply the Koranic law very strictly, to formulate it with precision and to draw implications from it. From this effort was to be born theology and the historical and judicial sciences. The Sunnites were the 'orthodox believers' of Islam.

This division of Islam occurred all the more rapidly and completely in that there did not exist, as in the Christian world, a clergy whose task was to interpret and explain the Revelation. Every mosque indeed had an *imam*, whose task was to direct prayers; but he was by no means a priest, and he could be replaced—in principle, any Moslem was capable of performing the office. The caliph could perform the functions of imam, but except for a section of the

Shiites his spiritual rôle stopped there. There were also *ulema*, that is to say scholars, dedicated to the study of the Divine Word, but they were laymen and were not considered to be inspired.

This absence of clergy was accounted for by the very nature of Islam. Allah was considered so entirely different from man and so superior to him that no man could claim to be nearer to Allah than anyone else. All believers were equal in a total submission to the Divine Majesty. Neither was there anything in Islam which resembled Christian monasticism; man should not flee the world; it was the regular accomplishment of his day-to-day social activities which was the centre of Koranic teaching.

Among Moslem practices, there remained one, however, which constituted a factor of unity and relationships: the *hajj*, or pilgrimage to the Ka'ba of Mecca, organized in accordance with traditional pre-Islamic customs. Moham-med himself conformed to this practice.

New Aspects of the World Economy

However important these religious aspects may have been, they were not the only factors in creating links, or even a solidarity, within each of the major blocs we have referred to. Material relationships between men, travel, and trade in merchandise became more intense and more coherent. In many cases, they led to the formation of more complex societies, in which a finer division of labour made possible a specialization which favoured intellectual occupations. At the same time, new relationships developed which held the former hierarchies in question. This too could be a factor of progress. To what extent did it play a part? To what extent did it lead to unification, or create oppositions?

In China, economic forces rested essentially on agriculture. But industry, through the exercise of monopolies, and especially trade, through taxation, often came to the rescue of a deficient budget. The great economic fact was the division of the empire into two. Northern and southern China were in opposition not only as an invaded zone and a zone of refuge, but also as a land of millet and a land of rice, an old country and a new country. Moreover, the north became dependent on the south, whose economy—derived from the colonial expansion of the Han—led to the maritime prosperity of the thirteenth century. In contrast to a peasant and nationalist northern China began the rise in the south of a mercantile and internationalist China. The situation was different in Japan, where the land was fertile in the north, while the south was a gateway to the outside world.

Social forces followed the fortunes of the lands. Han China and the division into three kingdoms had left behind it a completely disorganized society. More than four-fifths of the population had joined the 'protected' class. This class, bound to the privileged noblemen who owned great estates, remained an invincible hydra. Not being property owners themselves, these protected persons no longer paid any property taxes to the state, whose resources diminished.

Tax evasion and the evasion of labour went side by side. On three occasions, the sovereigns took the situation in hand; firstly with the agrarian reforms of the sixth century, secondly with the effort at centralization in the seventh century, and thirdly with the revolutionary programme of Wang An-shih in the eleventh century. But on all three occasions, the protected persons, freed from the clutches of the landowner but recuperated by the tax-collector, went back to the great estates. For all three times, an imperial policy of gratitude, of gifts for services rendered or to be rendered, led to the extension of privileged estates. The real evil lay there; the very existence of these estates, belonging to aristocrats or high-ranking functionaries, led to the cornering of property, the crushing of the little man and the debtor, a perpetual candidate for, and slave to, the régime of the protected class.

In Japan, the imperial domain was rapidly supplanted by that of the military dictators, or shogun. These possessed land belonging to their allies or their vassals. On the other hand, the land subject to the weak authority of the emperor constituted so many semi-independent fiefs whose partitioning served as a background to the whole history of Japan in the following centuries.

Political forces around the autocratic emperor were shared between the nobility and the functionaries. But this nobility was not stable; every new sovereign distributed titles to his relations and allies. The situation of the nobility fluctuated until the officially adopted Buddhist or Taoist religions opened the door to a knowledge which could serve as a counterweight to the intellectual monopoly of educated functionaries. From then on, the nobility grouped itself around the eunuchs and attempted to infiltrate all the private councils. The intellectuals, who had already constituted the instruments of power under the Han dynasty, remained a theoretically removable bureaucracy, but in practice a permanent and ineradicable one. As a general rule, the emperor, suspicious but perceptive, relied on these administrators who showed themselves to be concerned with the public well-being despite their propensity to defend their privileges fiercely. Power was not always easy to conserve; not only could the ideology change from one emperor to another, but every sovereign, Confucianist in his youth, could become Taoist or Buddhist in his later years. Under the Sung, the force represented by the merchant class was added to the clique of the eunuchs and the clan of the intellectuals. This merchant class at that time enjoyed a marked improvement in transportation together with the facilities provided by trade between the devastated north and the still prosperous south. But except under the Mongol occupation, this new force remained in second place, contained by the Confucianists, who traditionally despised trade, and by the clergy, with whom it frequently competed.

The interplay of these forces differed somewhat in Japan. The emperor, who was always respected, was frequently duplicated by a real master who in the long run also became respected. The Buddhist clergy was a tough partner or adversary until the thirteenth century, followed by the Samurai army. Here

too, the merchants formed a third force, but their rise was more vigorous than in China.

In India, trade had been traditional since the early days of antiquity. Despite tolls and customs duties, men and merchandise circulated not only from one extremity of the Indian world to the other, that is to say from Kāshmir to Ceylon, but also from Tibet, Indonesia or South-east Asia to the Indian metropolis. Despite the difficulty and duration of travel, either by land or by sea, the Indians had always been great travellers, and whatever might have been said about them, their religious scruples did not prevent them from crossing the 'black water' of the oceans. It is extremely likely that in the period covered by this volume (though we cannot specify in which century) the Indians had settled in east Africa and Madagascar.

In India itself, travel was facilitated by a remarkably well-equipped communications network which was available to pilgrims (the tourists of those times) and merchants. To cite just one example of such movements caused by foreign invasion: the Tibetan historian of Buddhism, Tāranātha, tells us that when the troops of Mohammed of Ghor invaded Magadha, many monks from the Magadhian universities emigrated to South-east Asia. The rector of Vikramaçīla, who was seventy-three years old, left for Tibet where he taught for eighteen years before returning to die in his native Kāshmir. Maritime contacts multiplied during the Cola dominance to such a point that it was no great exaggeration to claim that all the coasts from the Bay of Bengāl as far as Sumatra and Malaysia were under Tamil control. But the intermingling of populations, merchandise and ideas did not prevent various compartmentations. True, political frontiers within India had no considerable importance; they were scarcely of concern to the people, who paid their taxes and received justice under a uniform system, whoever was their sovereign. On the other hand, the diversity of languages, hardly appreciable in northern India, where several dialects derived from Sanskrit were spoken, gave the people of the south the impression that they formed distinct nationalities. It is interesting to note that the political map of Deccan at the end of the twelfth century approximately corresponded to the linguistic map: Yādava in the Marātha country, Hoysala in the Kanar country and Kākatīya in the Telugu country, while Pāndya predominated in the Tamil country.

But above all, the social structures hardened. The caste system seems to have been applied with unprecedented rigour. 'Within Indian society, particularisms, artificial hierarchies and prohibitions of all kinds multiplied, sterilizing the richest virtualities, inhibiting research and paralysing trade and hindering progress.

In the Moslem world the economy reached its apogee between the tenth century and the beginning of the eleventh century. It was then that the conquest of Sicily and Crete assured the safety of sea routes and enabled trade to develop fully. Production everywhere was, as it were, whipped-up by this trade expansion. The extraction of precious metals both within and without the

caliphates provided monetary resources in abundance. New techniques were developed for agriculture, handicrafts, trade and banking. Nevertheless, some questions arise: Was this expansion accompanied by an important population rise? Were societies profoundly transformed? Limitations imposed by geographical conditions seem to have played a part: the lack of timber and ore, the absence of major sources of natural energy, and drought, which created deserts and was a perpetual menace in zones where only constant and intensive irrigation allowed crops to be cultivated. In any case, after the great invasions of the eleventh century, after the Mongol conquest, the heyday was over, even though areas of prosperity remained in the Moslem world.

Ultimately it was the European economy—however modest its beginnings may have been—which seems to have progressed most, and in a manner such as to hold the brightest prospects for the future. However little we may know about its extent, a very appreciable population growth certainly accompanied the development of the economy, and set it ever more ambitious objectives—doubtless, finally, too ambitious for the possibilities of agricultural production. Men made better use of animal and natural forces, indispensable sources of energy in achieving mass production. Techniques of travel improved, and though navigation by sea remained the fastest and most economical form for a continent with an extensive seaboard, river traffic and even road transport began to undergo an impulsion, for they were obviously indispensable if the expansion was to reach the interior of the continent. The growth of monetary resources and credit was somewhat inadequate. About 1300, Europe was beginning to have recourse to the dangerous expedient of monetary mutations and to experience the thirst for gold and silver which incited it to discover and exploit its own and as yet untouched resources, and later to extend its search on a world-wide scale.

In any case, the occupation of the land had progressed considerably. Undeveloped areas separating human groups disappeared. An enterprising bourgeoisie began to emerge and gained control of urban autonomies. The peasantry and the poor classes in the towns became restive, and about 1300 there began the social struggles which were to reach notable proportions in the fourteenth century. States were reconstituted on the ruins of the Roman Empire: England, France, the Iberian states and the kingdom of Naples gave the example of these bodies whose dimensions did not exceed the handicap of distances and the shortage of educated men. A national spirit emerged in most of these states. Fairs provided merchants with the opportunity of international meetings. The great Italian trading and banking concerns established the bases of a truly European economy.

This picture of Europe, clarified by ever more numerous and interrogative historical researches, thus reveals marked contradictions. An economic dynamism had been triggered, with immense possibilities before it; but there were also bottlenecks which promised more than one crisis in the course of economic growth and set it on the road to world expansion. There were closer contacts

between men, and a European economy was born ; but states appeared between which was soon to develop the sinister interplay of national wars and European equilibrium.

New Routes and Trade Expansion

Though the religious aspect accounted for certain undertakings, it was doubtless the economic factor which mainly impelled men to go beyond their familiar horizons. Before giving rise to the great discoveries of the fifteenth and sixteenth centuries, the desire to find natural routes and to establish trade links—a desire served by the thirst for adventure of audacious individuals—led to intercontinental travel, or, even more simply, fruitful reconnaissance within a vast continent which was still not properly welded together.

Through such links, China was brought into contact with the outside world. Indians and Arabs were able to take advantage of the new routes linking north and the south of the country, to which their maritime voyages led them. On the other hand, the Iranians and the Turks still remained at the mercy of the narrows, the oases of Tarim or the steppes of Altai. Five successive waves (but which overlapped slightly) brought the knowledge of western cultures to China. Already under the Han dynasty the Iranian influence had appeared ; it was to last until the eighth century, along with Mazdaeism, Manichaeism and the trade of Sogdian merchants. In the fifth century Buddhism became the agent of Indian civilization, with its philosophy and its sciences, and with its economic and social aspects. In the sixth century the Tu-Kin Turks introduced various fashions into the capital, influencing customs and the arts in depth. In the eighth century the Arabs installed themselves and taught in the court before actively participating from the thirteenth century onwards in the pool of technical assistance and foreign aid which the Mongols needed in order to manage their conquered territories.

Stress must be laid on the importance to India of this contact with Chinese civilization. Many Buddhist pilgrims made the perilous journey from Kansu to the Punjab, across the Sin-kiang. The most famous of them was Hsuan-tsang, but there was also Hiuan-Tchao and many others, including Koreans, in the seventh and late eighth centuries. Few of them returned to China. Subsequently, the insecurity reigning in central Asia as a result of the wars between Turks, Arabs, Tibetans and Chinese caused the sea route via Palembang and the Straits to be preferred. This was the itinerary chosen by I-tsing himself (634–713) and by Ming-Yuan, Tche-Hong, Wu-hing and many others. The life of these mediators between major cultural areas has been described with poetic sympathy by René Grousset, and in a more rigorous and exhaustive manner by Bagchi.

Trade also allowed exchanges between civilizations. Foreign merchants frequented Indian ports and markets, among them the Jews, according to Al Biruni. Several Arab travellers visited India in the ninth century, including Mas'udi, who has left us an important description in his *Fields of Gold*. Some

of them ventured as far as Zabag in Java, Kumar in the Khmer country, and China. Without being impelled by the same religious motives as the Chinese pilgrims, Al Biruni studied India and its thought with interest and sympathy. Indian medical science and mathematics were known to the Arabs at a very early date and were merged with Greek science in the synthesis which they achieved.

But the Indians too went abroad. They went not only to central Asia, South-east Asia, Indonesia and Tibet, where they spread their civilization, but also to China—for religious and commercial reasons—and certainly also (though we have scarcely any record of it) to western Asia and east Africa. But they went to these places to export their merchandise and their ideas. They do not seem to have had the desire to enrich their own cultural heritage with the progress of other civilizations. Moreover, after the year 1000 the Indians, wary of Moslem imperialism, partially closed their frontiers to the north-west. India was then more widely opened to its cultural dependencies in South-east Asia and Indonesia; this was quite a vast area, sufficient to enable India to live while turning its back on other civilizations.

Let us take a look now at the true discoverers, the peoples or groups of people who from the eighth to the thirteenth centuries succeeded one another in their adventurous voyages. First came the Scandinavians, the Vikings who, from the eighth century onwards, sailed their slender ships on rivers and oceans. Historians are still discussing—and are likely to continue to do so for a long time to come—the reasons which led the Danes, Norwegians and Swedes to carry out this series of exploits. In view of the total or partial absence of geographical knowledge, maps and methods of direction-finding, their daring and their sureness seem astonishing. Some of them, stepping up their expeditions to western Europe (the destructive aspect of which has perhaps been too exclusively emphasized) created populations there and established a link between the Scandinavian world and Europe. Others established links between Scandinavia and Byzantium and Islam, across the immense Russian plains. Others again sailed beyond Iceland (reached about 870) and explored the coast of Greenland (about 980) and, though interpretations today vary concerning the exact location of the countries of ‘flat stones’ (*Helluland*), ‘forests’ (*Markland*), and ‘vines’ (*Vinland*) described in later sagas, we may take it as certain that some of them reached the north American continent and founded colonies there which were to become extinct after a few centuries. This first discovery of America, astonishing and creditable though it appears, thus had no great practical result; conditions were such that advantage could not be taken of it, as it could more than five centuries later.

From the eleventh century onwards the rôle of the Arabs manifested itself. Descriptions of travels and maps written and drawn by merchants and geographers (several of them were quoted in connection with Asia) show by contrast the utilization which was made of these first expeditions to create regular flows of trade, to arouse interest in the countries travelled through, and to

derive the foundations of a geographical science. We have already referred to the travels of the Arabs in Asia. They more or less loosely linked the Far East with the countries of western and central Europe. They sailed along the east coast of Africa as far as Zanzibar. They sailed up the Nile as far as Ethiopia, and organized the crossing of the Sahara. From 1325 to 1350, the great traveller Ibn Battûta travelled the main routes of this extensive world, and his accounts of these journeys constitute, as it were, the testament of this tremendous effort.

Then came the Europeans. Paradoxically, it was the Mongol conquest which, after having occupied or threatened the eastern territories of Europe, incited Europeans to undertake voyages of discovery. From the middle of the thirteenth century, Christian missionaries struck out across central Asia to seek among the *Khan* possible alliances against Islam, which was master of the Holy Land. Genovese and Venetian merchants travelled the same routes and the most celebrated of the latter, Marco Polo, made a stay in China between 1275 and 1291 of which he has left us an evocative account in his *Book of Marvels*. But the works of missionaries like John of Plano Carpini and William of Rubrouck are no less interesting. However, there is no continuity between these long voyages of the thirteenth century and the great discoveries of the fifteenth century. The break-up of the Mongol empire in the fourteenth century closed Asia to Europeans. They had to turn elsewhere, circumnavigating Africa or crossing the Atlantic. These new experiences had not been attempted in 1300.

Even if we add to this picture the more obscure links established between Asia, Africa and America, the achievements of a thousand years do not appear to amount to much compared with the world-wide circulation which was established from the fourteenth century onwards. But we should not underestimate the importance of these first steps, the most difficult ones. America and Oceania were still going their separate ways. Links with most of Africa were as yet no more than fragile threads. But Eurasia had become an appreciable human reality, and in the years 1347-9 the Black Death was to emphasize this solidarity between central Asia, the Mediterranean basin and Europe.

PART ONE

THE HISTORICAL BACKGROUND

CHAPTER I

THE MIGRATIONS OF PEOPLES IN EURASIA IN THE FIFTH AND SIXTH CENTURIES

I. THE MIGRATIONS

THE fifth and sixth centuries form what is known as the period of the Great Invasions, or, to use the more accurate term of the German historians, of the 'migrations of peoples' (*Völkerwanderung*). The Chinese empire of the Han and the Roman Empire had, up to this time, contrived to keep barbarian incursions on the whole within bounds. Such incursions now began, however, to be pressed with a new vigour, while the resistance of the empires weakened. The empires saw the greater part of their territory occupied by invaders. The groupings most integrated or most favourably placed, however, such as southern China, India, Sassanid Iran, and Byzantium, still stood as powerful bastions against invasion.

The great movement of peoples and its cultural consequences form a picture which calls naturally for treatment as a whole. Indeed, the effects made themselves felt, through a chain of secondary reactions and repercussions, throughout Eurasia. Comparison of the Asiatic and European phenomena has the advantage of throwing each into more distinctive relief. Moreover, these migrations raise everywhere the same questions: the relations between the native and the invader, and the durability of the influence of the still intact 'bastions' over the areas invaded.

A. General Survey

The Movements of Peoples

The Han and the Huns. From approximately the beginnings of the Christian era, the powerful empire of the Han had had to deploy its defences against barbarian encroachment. In the twenty years from 74 to 94, General Pan Ch'ao had brought the whole of central Asia into submission, assuring to the Silk Road and Pax Sinica, and opening the gates of the empire to Indian Buddhism and Roman trade. The Hunnic or Hiung-nu confederation was broken up, into three groups: the northern group at the upper Orkhon; the southern, federated in the loop of the Yellow River; and the western, established in the steppe near Lake Aral. In 156, the northern Hiung-nu had been ousted by a new, proto-Mongolian tribe, the Sien-pi. During the whole of the second

century, China had to repel the onslaughts of this people, before she was able to enjoy a respite, which was to last for a century.

The Romans in Europe. Rome, for its part, in full conquering vigour, had without difficulty annihilated the Cimbrians and Teutons in northern Italy (101 B.C.; Caesar had intervened in Gaul to protect that territory from the Germanic Ariovistus (58 B.C.); Augustus had undertaken the conquest of Germania as far as the Elbe. This was to be the limit of Roman expansion. In the second century A.D., Germania, which the Romans had evacuated, became once more a disturbing neighbour, against whom the emperors were to exhaust themselves in almost incessant frontier warfare, when they did not admit certain of its tribes as settlers in desert country, or use them as mercenaries.

The emergence of the T'o-pa. In Asia two facts dominated the fifth century: the advances of the T'o-pa in the east, and those of the Ephthalites in the west, movements which arose successively from the segmentation of the proto-Turkish and proto-Mongol tribes. The energies of the T'o-pa in the east were directed towards the conquest of Chinese soil; in the west, the Ephthalites coveted Indo-Iranian territory.

The first of these events, the emergence of the T'o-pa, took place against the complex background of the period of the Wu-hu-Shih-liu-kuo or the Five Barbarians and the Sixteen Kingdoms (301-437), which were founded mainly by the proto-Turkish Hiung-nu and Chieh, the proto-Mongolian Sien-pi, and the proto-Tibetan Ti and Ch'iang.

It is a period falling into two phases, each of them marked by a brief unification of northern China. The first, ephemeral unification, which put an end to Turkish-Mongolian rivalry, proved to be to the advantage of the Tibetan sovereign, Fu Chien of the earlier Ch'in (351-94). Fu Chien's failure to maintain this unification ushered in a second phase, characterized, like the first, by Turkish-Mongolian hostility, as well as by the intervention of declining Tibetan strength. While the barbarian chieftains were portioning out the remains of the Fu Chien domain, a short-lived Kingdom of Tai (438-74) re-emerged, the T'o-pa rulers of which, slightly Sinicized, assumed the imperial title of the Wei Dynasty, coming to be known as the Pei Wei, or Northern Wei (386-534). The second phase of the period of the Sixteen Kingdoms concludes with the Wei relentlessly pushing forward like a stream of lava. In the space of seventy years, four waves of conquest produced the unification of an empire the size of western Europe or India, which the Wei were to enjoy for a century.

The end of the Sien-pi and the fate of the Huns. The ever-changing movement of barbarian tribes, who were themselves out on the wheel of power, had not proceeded throughout the fourth century without its weakening effect on the hinterland, where the way of life was still nomadic. The Sien-pi had been masters of the steppe area since the second century. Now their four principal tribes coagulated on the Chinese frontiers, and founded in northern China

some five dynasties in the space of sixty years (337–97). This settling of military potential in the plains left the way clear in the steppe for disorders and risings, which dangerously undermined the authority of the chiefs of the confederation. The period when they were kept at bay by Fu Chien, when he controlled the whole of northern China and the steppe resounded with the Tibetan's success, must have been for them one of greatly lowered prestige.

What exactly happened as a result of Fu Chien's victories remains obscure. It is possible that pressure on the Sien-pi led to their exerting, in turn, pressure to the west. There, on the steppe of the Aral region, the ancestors of Attila grazed their flocks next to the Sassanid Iranians and the Gupta Indians. These powerful neighbours could reckon with the resistance of the Indo-Scythian kingdoms of central Asia, for those of the Chwarezmians and of the Kushans were still outposts of prosperous empires.

The irruption of the Huns into Europe. Southern Russia, on the other hand, in the hands of the divided Goths and the Alans, was but the borderland of a Roman Empire in decline. Tempted by the absence of strong guards, encouraged perhaps by the success of Fu Chien, or pressed by the retreating Sien-pi, the western Hunnic tribes or Huns crossed the Ural mountains in 375. They destroyed the Alan empire, and west of the Don, that of the Goths a few years later. It was the initial shock, vibrations of which now ran westward through the whole of the Germanic world. The Visigoths were fired by it to move into the Balkan peninsula, the rest of the Alans to fuse with the Vandals, who moved westward in the company of the Sueves. On December 31, 406, while the 'Romans' concentrated their strength in northern Italy, to ward off the Visigoths, the Vandals, Alans and Sueves crossed the Rhine, the Vandals halting only when they reached what is now Tunisia. The sacrifice of Gaul had not even the merit of saving Italy. Alaric's Visigoths entered the country in 408; in 410 they sacked Rome, the City of Light itself. In the wake of the Visigoths, other peoples established themselves throughout western Romania.

The empire of the Juan-Juan. These early years of the fifth century, in which Europe was experiencing the aftermath of the last Hunnic wave, saw the emergence in Asia, from among the remnants of the Sien-pi, of a new confederation of proto-Mongols, the Jou-Jan or Juan-Juan. Living originally in Manchuria, at the foot of the Khingans, they had doubtless felt the repercussions of the crumbling of the kingdom of Fu Chien in 385. The last great Sien-pi tribe, the Chi-fu, had established itself on the territory of Kansu, and had founded the dynasty of the western Ch'in (385–431), while the T'u-yu-hwen tribe had left the Liao valley to settle in the Kukunor area. All the great tribes had their eyes bent on China. Finding themselves far from the big coveted centres, the Juan-Juan, from the springboard that the Khingans had now become, embarked on the conquest of the steppe. In 402 they subjugated the proto-Turkish tribe of the Kao-ch'e, the nomadic inhabitants of the valley

of the Selenga, and installed themselves on the banks of the Orkhon. Their chief Shē-lun assumed the title of Kaghan or Great Khan, in the place of the old Hiung-nu title of shan-yu. The foundation of their empire had had a number of repercussions.

The kingdom of the Ephthalites. Altaic hordes, fleeing from the new masters, crossed the steppe of the Aral region, which had been abandoned by the Hunnic tribes twenty years before and settled in Transoxiana. Byzantine historians name them Ephthalites, misleadingly calling them White Huns, and dating their appearance between 385 and 420. In 425 the incomers drove out the last of the Kushans, masters of Kabul and Bactria. The Kushans, under the name of Kidarites, fled to Gandhāra, which, in the face of new pressures, they in turn abandoned, to take refuge in Kāshmīr (c. 510). In 470 the Ephthalites took advantage of the difficulties of the Indians to seize the Punjab from the Gupta (320-470), and advance as far as Mālwa, following the defeat of the Sassanid army of Peroz (484). They were now at the height of their power. They were harassed, however, by revolts which were provoked by their barbarity, and their ascendancy was short-lived.

In the fifth century the barbarians dominated the whole of northern Asia. In the steppe, the Juan-Juan held sole sway; in the east, the proto-Turkish tribes had hewn themselves an empire out of northern China (T'o-pa Wei, 386-534); in the west, the Ephthalites ruled the territory that separated the Sassanids and the last of the Gupta.

The Nature of the Invasions

If the barbarians imparted to Eurasia at this time a measure of uniformity, it should not be forgotten that underlying certain similarities were things which were essentially dissimilar. To Europe it was given to enjoy periods of respite, in which development could take place undisturbed by invasion; Asia, in every century, saw the barbarian hordes replenished by fresh blood from the nomad-bearing steppe. The empires that were vigorous and united might check the advance of invaders, but they were powerless to prevent the rise of fresh hordes of nomads to form new, moving empires. An end to these resurgences came only in 1689, when, by the treaty of Nerehinsk, Russian and Chinese imperial frontiers were made contiguous. In view of this, it may be questioned whether the term Great Invasions is an appropriate one to use of these Asiatic movements of peoples. In so far, however, as they were movements affecting the whole of Eurasia, use of the term is justifiable as applied to the sum of the disturbances caused by the barbarians of the fifth and sixth centuries in Europe and Asia. Moreover, despite the references to repercussions, it would be wrong to think of these movements of peoples as taking place through any close jostling of one tribe against another.

The territories of the barbarians in Asia were vast, and they had, before all else, to spread over an immense area to meet the requirements of transhum-

ance. As the herds grew, these needs became more exacting, and the old manner of provisioning by raiding had to be supplemented by manual labour, the only source of which lay in prisoners of war. The motive and guiding force behind hostilities was the need for new pastures. This set on the move peoples bent on the acquisition of strips of unappropriated or poorly defended territory. And with it went the quest for slaves, and for riches to furnish the courts of new lords or to serve as exchange currency.

In Europe, a similar mechanism operated, though the economic basis was different. If for several centuries the Germanic peoples fought to penetrate the Roman world, if the entry of the Huns into southern Russia had its repercussions on the Rhine, it was not because the Germanic world, for its part, was very densely populated. Among vast stretches of forest and marshland, the Germanic peoples occupied only 'scattered settlements, widely separated from each other, as they had chanced to come on a spring, a clearing, a wood', as Tacitus put it (*Germania*, c. 16). But their rudimentary agricultural methods made them great consumers of land. Their cultivation of burnt clearings rapidly exhausted the resources of the land, and forced them to move in search of fresh soil. It was this semi-nomadism that induced in the Germans, for all the vast areas they occupied, the sense of land hunger; and it accounts too for the weak link they felt with the soil. It makes doubly understandable the great migration set off by the Hun impetus.

The balance of power. In these sparsely populated territories, the barbarian confederations could nevertheless (as was the case in Asia) muster mighty hosts. There is a note of justifiable terror in the Chinese accounts of these ravaging hordes with multitudes of horsemen swooping suddenly like swallows, and disappearing amidst a hail of arrows. The T'o-pa, established as a Chinese dynasty, had at their disposal an imperial guard of 150,000 men, six frontier garrisons of about 300,000, and four covering armies. Major operations involved, on average, some 120,000 men on each side, and raids and reprisals anything from 10,000 to 50,000 men.

The barbarians who made their way into Romania, on the other hand, amounted to nothing like these numbers. Reliance is not to be placed on Latin writers, by the way, prone to believe themselves swamped by an overpowering tide of humanity. The Vandals, when they were organizing their move from Spain into northern Africa, took a count of themselves: women, old men, children and slaves included, they numbered 80,000. Similar numerical proportions for other peoples may be inferred from this. What is more difficult to assess is the significance of these figures in relation to the invaded populations. Were there, in the Iberian peninsula for instance, six to eight million natives against 100–200,000 Visigoths? Such assumptions are still risky. This much is certain, however; in Europe the invaders represented but a small minority. They derived strength, it is true, from their geographical distribution—forming the population of almost deserted areas, such as the area which is now

Belgium, and, in areas of dense native population, grouping themselves into small homogeneous cells, the 'faras' or 'fères' still indicated in the toponymy. But, most of all, they drew strength from their social distribution since they furnished the greater part of the political and administrative personnel.

The ethnic character of the barbarians. Historians have often called barbarians by names they did not give themselves. Now Hun, or Hiung-nu, German, Turk and Mongol are simultaneously ethnic and linguistic appellations. It is possible roughly to determine the racial affiliations of certain nomadic tribes. In Asia there are four principal stocks distinguishable: Turkish, Mongol, Tunguz and Tibetan. By the third century the lines of demarcation between these groups were blurred. The first two, Turks and Mongols, were already mixed, and traces of them were also distinguishable among their Tibetan and Tunguz neighbours. Hence there was a thorough-going linguistic interplay, making it difficult to designate by race those speaking any given language. Racial affinities may be overlain by fundamental linguistic difference, and vice versa. In fact, our terms, like those of the ancient historians, relate to social groups. The barbarian confederations bear the name of the directing clan, which, as a faction or a political party, has won for itself pre-eminence and command; in no case has it anything to do with racial or linguistic affiliation. In Europe the same is true of the current but misleading phrase 'Germanic invasion'. Examination of skeletons found in barbarian tombs, and analysis of the proper names that have been handed down in the texts, point to a complex ethnic situation. There were two main groups, both with a varying degree of homogeneity, and with elements of both also being found in combination often intimately blended: the one of white stock, tending to be dolichocephalic, comparatively tall; the other, Turko-Mongol, yellow-skinned, mesocephalic, characterized by flatness of the face, and of slighter build.

There was no such thing as racial purity, among the barbarians who trod Roman or Chinese soil. They were the composite product of a long period of intermingling. It is a point to be kept in mind, not only as a refutation of crude racist propaganda, but because it serves to indicate something of the complexity of the cultural influences at work since the fifth century.

B. The Invaded Areas (Map I.)

Northern China under the Barbarians

Sinicization of the T'o-pa Wei. Seeking to put behind them the unrewarding soil of mountainous country, the sovereigns of the Wei had conquered the fertile regions of Honan in 409, and then, freed from the incursions of the new Juan-Juan empire of the steppe, had taken possession of the first stages of the caravan route (431-9). (Pl. 1a.) They exploited the new agricultural and commercial resources by setting up a system of 'collaborators'. These local authorities worked to some extent independently, having only to supply dues

Cartography Hallwag Berno



MAP I

to the central government. On to this Chinese civil organization, the Wei superimposed a T'o-pa military one. From the completion of the territorial conquest, in about 490, the influence at court of the Chinese collaborators, who became indispensable administrators, continued to grow. The emperor Hsiao-Wen (471-99) then took the momentous decision to move his capital from the present Ta-t'ung to Lo-yang. The advantages were many, and the great Chinese landowners thought, among other things, that their estates, being near the new capital, would increase in value. Policy, henceforward pro-Chinese, placed the dynasty in a position of mastery over the whole of China. A sullen antagonism grew up, however, between the T'o-pa beneficiaries of the court and the nobles, now relegated to the position of provincials; the latter, in their frustration, became the repositories of the national conservatism. The Revolt of the Six Garrisons in 523, in which enslaved natives, deported criminals and convicts, spoilt by the idleness of pacified frontiers, took part, forced the two sides into a bitter civil war (524-34).

Barbarian rivalry. In the guise of legitimacy, the northern Wei dynasty perpetuated itself in two rival branches, power being in fact divided between two families, the Kao and the Yu-wen. The Kao, masters of the eastern Wei (534), ruled a kingdom of twenty million inhabitants, in country that was poor and mountainous. But it was not long before both families came to the fore. Yu-wen T'ai replaced the western Wei by his own dynasty, known as northern Chou (537-80), and the Kao installed themselves on the eastern Wei throne, founding the dynasty of the northern Ch'in (550-7). The northern Chou set out as a matter of policy to barbarianize all that was Chinese. The Ch'in took the opposite course and rehabilitated Confucianism. In 557, having worsted the Ch'in, the Chou assumed control of the whole of northern China. This was the last barbarian empire, and it was short-lived. A member of the powerful Chinese Yang family, which was in alliance with the emperor, seized power in 581 and founded the dynasty of the Sui, destined by its reconquest of the south in 589 to end the division of China. The union opened a new era, in the course of which, from the seventh century to the dawn of modern times in the thirteenth century, China was to figure as a major world power.

Central Asian Empire

The western side of the continent of Asia likewise saw the emergence, development, and disintegration of a barbarian empire. But, while in central Asia there were mountainous areas corresponding to those of north-west China, in contrast to the great expanses of fertile territory of north-east China, the centre had only oases of cultivation.

The areas along the Iranian border, less densely populated, had formed themselves into city states. Unlike the federated kingdoms of northern China, with their policy of conquest at the expense of the Chinese, the cities of central Asia were jealous of their independence and shunned expansionist ambitions.

They remained on an alert defensive, and let pass the barbarians, who lived by plunder, unable to strike roots.

In this sense the empire of the Ephthalites was more like the empires of the nomads of the steppe than that of the sedentary populations of China. Nevertheless, commercial prosperity, and the imitation of local courts, were to endow the Ephthalite court with the splendour of a great capital, brilliant enough to dazzle more than one traveller. Exclusively a military power, the Ephthalites, in a spirit of national conservatism, made no attempt to make use of local officials, as the T'o-pa had done. The net of their control was never given any finer mesh than that of the main lines of their garrisons. This sufficed to keep down insurgents, but, in fact, it was only in consequence of internal Gupta and Sassanid dissensions that their unwelcome presence continued in the strip that separated the Iranian and Indian worlds.

India Invaded

Further south, the onset of barbarian attacks forced India into a relative isolation, but the invasions, though they had consequences important for India historically, nevertheless penetrated no great distance into Indian territory, and the barbarian depredations sparked off an uprising that ended in the almost complete annihilation or assimilation of the invading hordes.

The Ephthalites (White Huns, or, in Sanskrit, Śvetāhūna or Hūna) had made their appearance in India proper at the end of the reign of Kumāragupta. They had been twice repelled by Skandagupta, when his father was still alive and later when he himself was reigning. The main events of these struggles have been described in Volume II of *History of Mankind*. India was then at the height of her power, with Indian culture bearing the finest fruit in every field.

From 470, however, the Huns began their attacks afresh, this time with more substantial results. They established themselves in the Punjab, and thence sallied forth on expeditions, intent mainly on pillage.

The precise extent of the Hun possessions in India is unknown. Probably they were content with an inadequately enforced suzerainty over the west, bolstered up by raids, in the course of which they were often defeated.

The situation continued thus for more than half a century, under the Ephthalite rulers Toramāna and Mihirakula. Then, under pressure from all sides, the precarious empire finally collapsed.

Toramāna, who struck silver coins on the Gupta model, made use of a local Indian administration. About the beginning of the sixth century, the Chinese Sung Yun, envoy of Queen Hu (515-28), wrote of the Huns in a tone of cordiality, and it seems that a number of them had become converts to Buddhism, while Toramāna had, officially at least, adopted Hinduism. Toramāna's successor, Mihirakula (for whom has been proposed the dates 502-42), was by all accounts a barbarian whose delight was in pillage and bloodshed.

India thus far had found itself able to come tolerably to terms with the foreign invaders, provided they accepted Indian civilization and fitted into the Hindu social framework. The barbarity of the Huns, however, roused fierce hostility, and, although there would seem to have been no co-ordination about the movement, several princes headed local insurrections, and the Huns suffered defeats which finally destroyed their power.

From 520, the victories of the Gupta Bhanugupta, of Yaśodharman, sovereign of Mandasor, and, according to the Chinese pilgrim Hsuan-tsang, of Bālāditya (Narasimkagupta), king of Magadha, brought the Huns to exhaustion. The struggle against them was not the monopoly of professional soldiers; various chiefs had a hand in its direction, and it would be excessive to think of a powerful centralized organization—an impossibility in the critical and politically disorganized state of India at that time.

At all events, the White Huns had lost all political power in India by the middle of the sixth century. Had they, then, been eliminated? In all probability, no. Those who remained, however, would be assimilated into the Indian environment and merge into Indian society, soon to become in their turn defenders of everything Indian.

Roman Empire and its Division among Barbarian Dynasties

The invading peoples had no desire to do away with the Roman Empire; their own political structures were in any case far too flimsy to be thought of at first as substitutes for it. Almost all of the invaders came in first as 'federates', established on the land by treaties, in virtue of which they became professional armies at the disposal of the empire. With time, their membership in the empire became increasingly theoretical. In 442, the Vandals forced recognition of the full autonomy of their African kingdom. In 476, the child-emperor Romulus Augustulus having been overthrown, Odovacar, chief of the armies in Italy, omitted to appoint anybody to succeed; the empire had henceforth only one capital, Constantinople. Practically, the event had small meaning: the consideration accorded to the emperor by the barbarian kingdoms, now well established in Europe and Africa, was by that time already merely temporary and purely verbal.

Vandals and Goths. The political unity of Romania had now in fact disappeared. In its place is a shifting pattern; new kingdoms arose as new peoples entered Romania, and the frontiers of these then shifted, as profound changes took place in the balance of their respective powers. The first-comers, the Vandals of north Africa, and the Visigoths of Spain and Aquitania, settling advantageously in the Mediterranean countries, were the first to shine. The Vandals, under Gaiseric (428-77), constituted for themselves a Mediterranean empire, with Sicily, Sardinia, Corsica and the Balearics. The Visigoths, under Euric (466-84), pushed their frontiers to the Loire and Rhône. Then the advent in Italy of the Ostrogoths, headed by Theodoric (488-522), opened a new period

of Ostrogothic supremacy. Theodoric pursued a clever matrimonial policy which allied him to all the barbarian dynasties. He also took advantage of Vandal and Visigothic decline, and endeavoured to contain the emergent Franks. In this, as in Italy itself, his last years were marked by failures, and thus began the decline of the Ostrogoths.

The supremacy of the Franks. Next in the supremacy succession were the Franks, with a kingdom set outside the Mediterranean area. Clovis, even though praise of him has been exaggerated on account of his conversion to Christianity (his father, Childeric, king of Tournai, receiving in consequence much less than his due), was nevertheless the architect of this ascent to power. The chronology of his reign is under dispute. The most recent, rather well-substantiated theory places his baptism as late as 506, and has him reaping immediate reward: victory at Vouillé and conquest of almost the whole of the Gallic part of the Visigothic kingdom (507), as well as unification of the Franks. While Clovis' sons extended the Frankish kingdom towards Germany, and routed the Burgundians, the older, Mediterranean barbarian kingdoms declined. The centre of gravity in Europe began its move to the North.

C. The Peopling of the Aggressor Zones

Changes in the Steppe World

The disappearance of the Juan-Juan. While to east and west the T'o-pa and the Ephthalites built up their empires, in the steppe centre, now freed of warring forces, the proto-Mongol tribe of the Juan-Juan, vassals of the Sien-pi, carved a new empire on the banks of the Orkhon. The fate of the Juan-Juan was not to be that of the Sien-pi, who were submerged in the organization of agricultural kingdoms. They had, however, to suffer repeated attack by the T'o-pa, the rising young Wei dynasty. In 429 there came from this quarter the decisive blow. The Juan-Juan, crushed, were thenceforward almost without forces, and their slightest stirrings (in 443, 449, 458) brought them pitiless retribution.

The empire of the Turks. There is now discernible in local risings the importance of the Altaic tribe, known to the Chinese as the T'u-chueh, which founded the first Turkish empire. In 552 their chief, Bumin, defeated the Juan-Juan, who now disappear from the record. Bumin's death in 552 entailed division of the new empire. The elder son, Mu-han (553-72), bearing the imperial title of Kaghan, ruled the eastern T'u-chueh, from the Upper Orkhon; his younger brother, Istemi (552-75), who had received the princely title of Yabghu, with the western Turks, ruled the territories running west, the present Dzungaria.

This immense Turkish empire was for almost half a century to include the key territories of central Asia. The arrival of the Turks in the steppe was a landmark, certainly, in the history of the barbarians. The former T'u-chueh tribe, metallurgists to the Juan-Juan, was an assembly of craftsmen, and their

power was to have a technical and commercial basis rather than a pastoral or agricultural one.

The T'u-chueh-Byzantium alliance. As masters of the Silk Road, the T'u-chueh wanted to snatch from the Sassanids the monopoly of that precious material. Failure to do so led them to seek Byzantine markets, and from the exchange of ambassadors—Maniakhs and Zemarkhos (567–8)—came an alliance against Persia. A Turkish threat, obliging Persia to attend to a second front, took much weight off the minds of the Byzantine government. Yet in spite of this political imperative, Turkish-Byzantine relations underwent many vicissitudes.

To the Byzantine alliance the Turks contrived to add another with the Chinese. Since the accession of Tardu (575–603) to the western Turkish throne, the eastern Turks had ceased to have homage paid to them by the junior line. Thus isolated, they had also to contend with the hostility of the Sui, to whom they represented imminent danger. The western Turks, having thus the advantage of Chinese support, could, in the last years of the sixth century, claim to link Byzantium with Chang-an.

At the court of the T'u-chueh, ambassadors and merchants, monks and thinkers, from Christian Byzantium, from Zoroastrian Persia, from Buddhist or Hinduist India, and from Confucianist or Taoist China, could meet each other, talk business, or exchange ideas, in an atmosphere of liberalism and tolerance.

The Hunnic community had been succeeded by a Turkish society, whose chief merit was to awaken in Eurasia for the first time a consciousness of unity. Six centuries later, the Mongols were to mingle the same cultures, but with none of the fertilizing effect of the Turks, for their achievement was not a linking of the territories but an occupation.

Changes in Europe

Not all the Germanic tribes moved into Romania. Others remained in their old habitats, continuing in their traditional way of life: the Saxons of northern Germany (between the Elbe, the North Sea, the Weser and the Harz Mountains), the Frisians of the coast (between the Weser and the Meuse), and the Norsemen of the Scandinavian countries. A great division makes itself felt from now on between these and the more or less Romanized Germans of the barbarian kingdoms. Unlike the latter, the former have no written customs; they cling to political dispersion, paganism, and the runic alphabet. Only in one or two epic legends, like the story of Beowulf, which was set down in England in the eighth century and recounts the adventures of the Swede Beowulf, the Frisian Finn, does any relic survive of the former (and relative) German cultural unity.

The Slavs. The areas abandoned by the Germanic tribes in their move west and north were taken over mainly by the Slavs. These Slav populations had lived for at least a millenium before the third century A.D. in a primitive

habitat which can be plausibly located between the Carpathians, the Baltic, the Oder and the Dnieper. Thence the eastern Slavs expanded into the future Russian plains. The southern Slavs infiltrated, in the first and second centuries A.D., in the direction of the Danube they reached the Hungarian plain in the third century, and penetrated into the Balkans at the beginning of the sixth century. The western Slavs spread gradually: in the course of the third century, they spread through eastern Germany; in the sixth century they are reported on the Elbe.

The Avars. It was an amorphous world, to which an Asiatic people was the first to give shape. The Avars who, driven from Asia by the T'u-chueh, made their way in about 565 into southern Russia, were a group of tribes formerly subject to the Juan-Juan. Their Kaghan brought part of the Slav world together in a vast empire, the bounds of which were the Baltic and the Dnieper, the Danube and the Elbe. He launched attacks westward against Franks and Bavarians, and southward against the Byzantine Empire; and he drove the Lombards into Italy. With his death (c. 600) a slow decline set in, punctuated by revolts of the formerly submissive Slavs, which was to leave the Avars' dominion confined to the western part of present-day Hungary.

D. The Strongholds

The Resistance of Southern China

The Six Dynasties. The period that, in the north of China, saw the Sixteen Kingdoms of the Five Barbarians succeed each other, and the emergence of the dynasty of the northern Wei, was for the south a period of five successive dynasties. These, with the national and southern dynasty of the Wu (222–80), comprise what is known as the period of the Six Dynasties, coming between the great empire of the Han (third century B.C. to third century A.D.) and that of the Sui and T'ang (sixth to tenth century). The rule of these five dynasties was over a southern China into which the barbarians never penetrated. They failed only narrowly to do so, however, and it was in fact a man of the north who conquered the south to re-establish unity. The assault of the barbarian dynasties had cut back by one half the territory of the national dynasty. The Liang, the longest-lived dynasty (502–56), had alone been able to conserve its patrimony and compete with the north for the possession of the Silk Road; but risings of the inhabitants of Szechwan supported by the T'o-pa, weakened the central power, which eventually could hold only the region of the lower Yang-tse. In 555, at Hankow, in the very centre, the northern Chou placed one of their vassals on the Liang throne, while in the east a general founded the dynasty of the Ch'en. When the northern Chou, masters of south-west China and conquerors of the northern Ch'in in 577, were replaced by the new dynasty of the Sui, Yang Chien, their founder, found himself with no more than a quarter of the country to conquer to unite the whole of China.

The root of the progressive decline of the court of Nankin lay in the chronic degeneracy of the sovereigns. The few imperial figures of the stature of Wu-ti of the Liang were insufficient to counteract the many debauchees of the southern dynasties. The south was saved from swift annihilation at the hands of the barbarians by a combination of social, economic, and geographical factors.

Socially, the rivalry between the newcomers, émigrés from the north, and the old settlers who had been established for a century, worked itself out against the background of a sound administrative and economic structure. The 'colonial' climate for exploitation of the land and its wealth produced two powerful aristocracies, that of the newcomers who intrigued in the north, from time to time paralysing the ventures of the barbarians, and that of longer-established big landowners or wealthy merchants, turning to account the influx of northern émigrés. The newcomers dreamed of reconquest even as they set about acquiring maximum possessions, and the southerners sought to hold their position and avoid eviction. As the idea of reconquest receded, émigrés and court alike suffered increasing loss of prestige. This rivalry, crystallized in the antagonism between Hankow and Nankin, brought about the collapse of the empire under the effects of a *coup d'état* on the one hand, and insurrections on the other. Favourable economic conditions may have done something to hold back the invader, but, strictly speaking, the main reasons for the south's immunity were rather geographical and military.

Economic and geographical disparity. Southern China had an economy quite unlike that of the north. Annexation of it thus posed delicate problems for a northern dynasty whose experience of rule had been over pasture, or plains of an arable type. On such flat country, moreover, the invincible nomad cavalry could annihilate the Chinese infantry; in the southern hills and forests, the advantage passed to the foot-soldier. It was regional disparity that made southern China, in spite of itself, a redoubtable bastion. Like the walls of Constantinople, it presented a barrier to invaders, the barrier of the Ching-ling, an extension of the mountain chains of the upper valley of the Chia-ling, and the obstacle of the River Huai against the mountain mass of Huai Yang. All annexations made were of territory between this line and the first line of resistance formed by the valleys of the Wei and the Lower Yellow River. Sheltered thus from sudden destruction, the court of Nankin was able to degenerate slowly over more than a century without being invaded. Nankin was a prosperous capital, and experienced both the good and the bad of the Buddhist wave. Here, however, in contrast to the north, the expression of the new religion was less practical and more intellectual. Interest focused on the more aristocratic, contemplative aspects, and the achievement of the Nankin court was a series of studies and literary researches. This was the time of the foundation of the scholastic sect of the T'ien-t'ai, the journeys of Fa-Hien (416), the poetry of T'ao Yuan-ming (375-427), the calligraphy of Wang

Hien-chih (344–88) and the painting of Ku K'ai-chih. In contrast to the more industrially and politically oriented thinking of the barbarian courts, Nankin represents a more meditative, more Chinese strain, foreshadowing the currents of the first Sung in the thirteenth century. It is by this deepening of the intellectual heritage that Nankin merits inclusion in the ranks of resistant national dynasties.

India at the Time of the Invasions

India was far from being entirely submerged by the tidal wave of Huns. Its political equilibrium was nevertheless profoundly upset by the invasion, which brought about the collapse of the Gupta empire and the break-up of Indian unity.

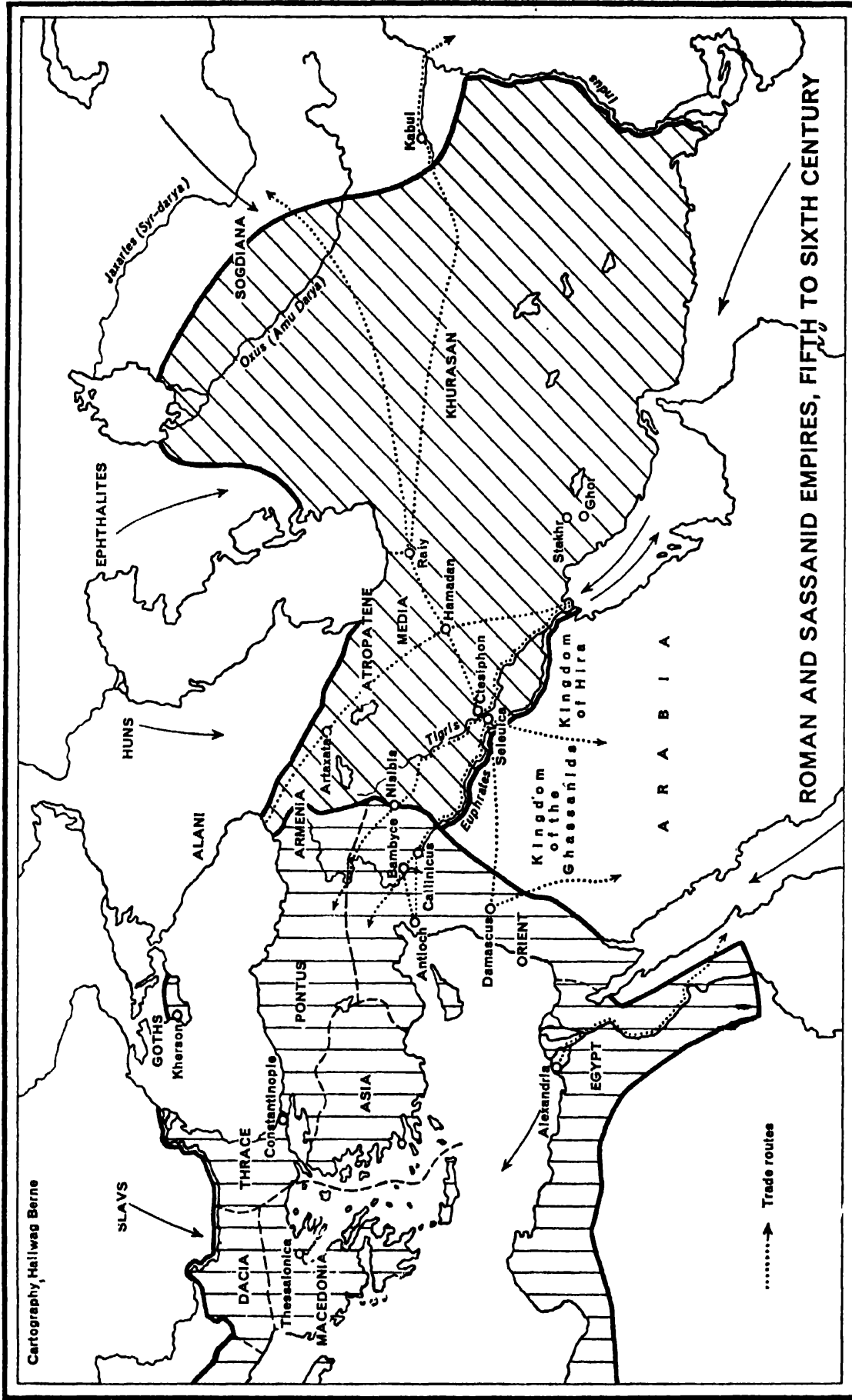
At the beginning of the fourth century, India consisted of a large number of tiny states. In the space of three reigns and less than eighty years, the Gupta dynasty had brought almost the whole of the Indian sub-continent into a confederation. For Kumāragupta (413–55) it had remained to perfect the organization of the state, and to continue the tradition his predecessors had brilliantly established of patronage of every form of cultural activity.

The achievements of this brilliant period have been fully described in the preceding volume. Indian civilization was at this time bearing its finest fruits.

The break-up of the Gupta dynasties. It was now that the successive blows of the Huns came to shake the empire. External trouble aggravated disputes over the succession. Skandagupta, for instance, had come to power through his victory over the Huns, without being the son of the first queen, and had in consequence to contend with opposition from his half-brothers. From the time of Skandagupta, at all events, the genealogical and dynastic lists diverge, and five sovereigns at least are on record in a space of forty-five years, sufficient indication of the degree of instability and political confusion which was produced by the invasion and which was to persist after the collapse of the Hun power.

The vassals regained their independence; they were called on in company with the military leaders and governors of provinces to head the struggle against the invaders. For instance, Yaśodharman, who defeated Mihirakula and 'conquered the earth', was of the dynasty of Mandasor, vassal to the Gupta. The vicissitudes of the conflict, which have come down to us in the inscriptions and in Hsuan-tsang's account, certainly do not represent the whole story; the father of Harsa was another who was, belatedly, 'a lion to the Huns'. In general, the impression that remains of this troubled period is of the vitality of the India of the ksatriya, in spite of feudal anarchy, and of the vigour of Indian sentiment.

At the end of the fifth century the last important Gupta, Budhagupta (477–96), still ruled over Magadha, eastern Mālwa, Bengāl, and central India, but the Deccan, behind its protective screen of forests and mountain ranges, had



MAP II

reassumed an independent existence, calmer than that of Hindustan. At the time of the death of Mihirakula, in the middle of the sixth century, the Gupta were no longer anything more than local sovereigns.

Sassanian Iran

Between the Hindu world and the Mediterranean, two great empires of universal importance, Sassanian Iran and the Byzantine Empire, on the whole escaped the invasions, sufficiently, at any rate, to lead a brilliant existence for some centuries, though not without taking their toll of each others' strength in a series of wars. (Map II.)

Under the Sassanid dynasty, Iran continued to figure as a great state. Centred as it was on the Iranian plateau, and with mountainous approaches, it had at the same time points of weakness in its frontiers, zones to be fortified, particularly along the shores of the Caspian, and the desert borders of Mesopotamia. The fifth century was for Iran a critical period, with the Ephthalites penetrating as far as Syria and Cilicia, and the Chionites attacking continually in Khurasan. This troubled period was also marked by the preachings of Mazdak, the shadowy founder of the official Mazdaean religion. The popularity this doctrine attained with the lower classes was due to its social aspect, which tended towards community of possessions and of women. It was the one feature which posterity was chiefly to retain. King Kavad, influenced by these ideas, envisaged reforms. Possibly there was a redistribution of land. At all events, Kavad forfeited his throne, and had to seek refuge with the Ephthalites. The Ephthalites restored him to his throne, and there followed a general massacre of the Mazdakites.

This crisis apart, the sixth century was, nevertheless, a period of great brilliance, the reign of Chosroes I Anushirvan, i.e. the Blessed, (531-79), in particular. The prosperity of Iran owed a lot to its geographical situation, which gave it control of the main routes to the Far East: that by land ran across central Asia, access to which via the Caspian was blocked by the Ephthalites, but which the Persians diverted through Khurasan to Nisibis and Callinicum in upper Mesopotamia; and there was that by sea across the Persian Gulf to Ceylon, where a powerful Iranian colony waited to receive the merchandise brought thither by Chinese traders. To the profits it drew from the raw silk, spices, perfumes and precious stones which thus passed through its territory, Iran added others from its industries, which were developed partly by Byzantine craftsmen: silk manufacture, work in gold, and carpets. The prosperity of the country was reflected in the success of the Sassanian currency, the silver drachma or dirhem, which was to be found as far away as India and southern Asia, and in the rise of commercial townships, among which Ctesiphon remained the foremost. A class of craftsmen and merchants, the Hutuksh (that is, the industrious), derived its livelihood from this commercial success.

Such was the nature of a society that was strongly organized, according to

the religious principles laid down in the Avesta. It comprised the three castes of priests, warriors and cultivators. The priests, rich and powerful, with a highly differentiated hierarchy, performed many functions, from the conduct of divine service in the fire temples to the spiritual nourishment of the soul. A double nobility, military and landed, was responsible for the maintenance of the integrity of the country. To combat the intractability frequently displayed by this nobility, the government did not hesitate to form contingents of foreign mercenaries. The lot of the cultivators was a hard one, a fact that was to prove an Iranian weakness in face of the Arabs.

Arab historians later liked to recall the qualities of the Sassanid state, and Firdusi in his *Book of the Kings* lauds the bravery and justice of the rulers, the pomp and ceremoniousness of their court. Their authority was in principle absolute, though benevolent towards clergy and nobles, in whom a virtually continuous state of war fostered the spirit of discipline. A highly centralized administration embraced the rest of the population.

Mazdaeism and tolerance. Mazdaeism, the state religion, acted as an effective cementing factor. The religious feeling became part of a true patriotism, which showed a ready response and an attachment to the oldest national traditions, and found expression in a kind of national art, exemplified by vaulted brick palaces (as at Ctesiphon), and great wall reliefs celebrating the triumphs of the royal house. (Pl. 2.)

The official church would have preferred to show an uncompromising front to all other faiths. Partly for political reasons, however, the sovereigns saw fit to be tolerant. They had to come to terms with Manichaeism, the dualist tenets of which somewhat resembled those of Mazdaeism. The existence of Buddhist monasteries in Iran up to the seventh century is attested by Hsuan-tsang. Colonies of Jews, grouped in fairly compact settlements in the areas east of the Tigris, in general enjoyed the protection of the Great King, and the fourth century saw the foundation of the academy of Sura, which was to undertake the preparation of the edition of the Talmud known as the Babylonian Edition. The first Christians of the empire, transplanted from Syria into Mesopotamia as a result of military operations, were naturally the objects of a suspicious surveillance, particularly in times of conflict with Byzantium. But when the Byzantine state drove out the Nestorians, who had been condemned by the Council of Ephesus in 431, the Great King gave them refuge. They founded at Nisibis and at Seleucia what were soon flourishing schools of theology, and Nestorianism became to some extent the second national religion of the Sassanian empire, before it began its penetration into Arabia and central Asia towards the end of the sixth century. Others to whom the Great King offered asylum were the neo-Platonist philosophers driven from Athens by the closing of the Academy in 529. They stayed in Ctesiphon only from 531 to 533, but their influence persisted after their departure. Then came the flowering of the school of Jundishapur, established in the fourth or fifth century. In these ways

the Persian empire proved to be a notable intersection point of various cultural influences.

Conflict with Byzantium. The main source of weakness of Sassanian Iran lay in its conflict with Byzantium. It was a conflict engendered partly by the pretensions to universality which each empire cherished. At times it assumed a sharply religious character. Preponderantly, however, the factors in its making were economic. In control of the route to the Far East by way of the Persian Gulf and Mesopotamia, the Sassanids were set on acquiring also its extension towards Antioch and the Mediterranean. The Byzantines, for their part, created dissension by attempting to infiltrate among the populations of Iberia and the Lakz country, between the Black Sea and the Caspian, seeking thereby to gain control of the land silk route. The state of war led the Byzantine emperor, the Basileus, to seek another route by way of Egypt and the Red Sea. He accordingly encouraged an Ethiopian intervention in the Yemen, undertaken, in the Moslem tradition, to avenge there the Christian co-religionists who had been persecuted by the Jews. During this campaign, the Ka'aba of Mecca apparently escaped destruction only by a miracle. Similar commercial aims dictated a Sassanid counter-action; in about 540 the Abyssinians were driven from the Yemen, which the Persians made a satrapy of their empire.

Only the main outline of this Iranian-Byzantine conflict can be given here. In the fifth century, the two empires came to an uneasy understanding to defend the Caucasus from the Ephthalites; but hostilities were reopened at the beginning of the sixth century. Then Justinian, anxious to have his hands free for his action in western Romania, concluded a perpetual peace in 532, but this was destined to last for only eight years. In 540, Chosroes I, by seizing Antiochia, sparked off once again a war that was only interrupted by short spells of truce. Then came the point, in 611, when, freed from all threat of invasion from north and east, the Sassanids could throw all their energies into the fight against Byzantium. Sassanian armies invaded Syria, where Jacobite and Nestorian Christians received them favourably; then, crossing Asia Minor, they ensconced themselves in Chalcedonia; and finally, after sacking Jerusalem, they occupied Egypt in 619. But the Persians had not anticipated a strategic stroke of genius on the part of Heraclius, the new Basileus, who had come to the throne at the height of the conflict. Writing off Asia Minor and Syria, Heraclius headed a magnificent campaign through Armenia, fell on the heels of the Persian armies, and arrived finally in Ctesiphon, causing the fall of Chosroes II and an internal collapse.

This conflict had major consequences for the countries that lay between the belligerents. Armenia, which in about 390 was divided between the Sassanids and the Byzantines, played a considerable rôle, if a somewhat negative one, partly because of the mountainous character of its terrain, which made penetration difficult, and partly because of the energy and independence of mind of its population. It was able to retain its own language and culture, and, in contrast

to Iranian Mazdaeism, it adopted Christianity. To avoid absorption by Byzantium, however, it embraced the Monophysite heresy.

On the edge of the Arabian desert, small states took advantage of the struggle. At the beginning of the fifth century, the Lakhmid emir of Hira had made certain that a Sassanid would ascend to the throne. In 531, as a counter-move to these allies of the Persians, Justinian created the principality of the Ghassanids, with its capital at Basra. The Lakhmids were Nestorians; the Ghassanids remained Monophysite.

As W. Barthold has put it, 'the story of the Persia of the Sassanids is not one of progressive development followed by gradual decline; the fall was sudden, unexpected, and sharp, the reaching of breaking-point of tension after its greatest external successes'.

The Byzantine Empire

With the exception of the Balkans, the eastern Roman Empire succeeded in escaping the domination and settlement of the barbarians from the north. Some credit for this must go to the eastern emperors (though their western counterparts were by no means fools). But it was in great part due to the exceptional strategic situation of Constantinople. To take that city it was necessary to overcome both land and sea defences—the two mighty walls that, from 413, spanned the peninsula on the tip of which the city stood, and the fleet on guard in the straits. It was a combination upon which all attacks foundered for nearly eight centuries. (Map IV.) Such a situation made the barbarians, both Goths and Huns, responsive to a diplomacy that aimed to divert them westwards: thus, in 488, the Ostrogoth Theodoric was sent to conquer Italy.

Rome had fallen, then, but Constantinople stood—justifying the Christian thinkers who thought the Roman Empire would end only with the end of the world. The Empire was, in their eyes, the instrument of Providence. In it, men had been brought together for the better diffusion of the true religion among them. It was this providential conception that throughout the Middle Ages lay behind the mystic prestige of the Empire.

Egypt. The influence of neighbouring Iran, where there developed a national, anti-Hellenist reaction, was not without its part in this; though Iran combated Hellenism in the east by other means, as, in the west, Germanic impact weakened the Roman hold. The old local traditions, at all events, alive and vigorous still, especially in Syria and Egypt, obtained a new lease of life from Christianity. To bring the Christian Revelation to the rural population of Egypt, it was necessary to translate the Scriptures into their own tongue, and, to that end, to create the Coptic script. It was the point of departure of a national Christianity, vigorous, but narrow and passionate, and of a Coptic culture—an emergence to self-awareness, as it were, of a people that knew itself to be despised. A popular literature emerged, undistinguished enough,

woven out of the lives of saints into stories more or less fantastic; but also an art, stringent, stylized and ascetic, yet alive at the same time to colour, as exemplified in the frescoes of the monastery of Bawit in upper Egypt.

Syria. Development on similar lines took place in Syria, with this difference, that Syriac literary production was of an altogether superior quality. The sixth century, with writers like Jacob of Serugh and historians like John of Ephesus, saw this at its peak. This was the time also when the great Syrian translation movement began to get under way, headed by such men as Sergius of Resaina. It was the translation of Greek words of science and philosophy, now made into Syriac, that first stimulated Arabic science. Syrian architecture, while it used a decorative vocabulary that was local in character (daisy and helix, plaited, often with animals inscribed in the loops) remained closer to the Hellenic spirit, in the fine adornment of the walls and the simplicity of the roofing of its churches.

Nestorians and Monophysites. The most forcible expression of the new entities was on the religious plane. The Council of Nicaea (325) had condemned Arianism; Christ was declared to be at once God and man. But, in the exposition of this dogma, divergences made themselves felt. The school of Antioch tended to separate the two aspects of Christ: in Him, the Word is made one with man, but without thereby changing him; juxtaposition rather than union. This is the thesis known as the Nestorian heresy, after Nestorius, Syrian patriarch-elect of Antioch, who professed it. The school of Alexandria, at the other end of the scale, emphasized strongly the divine nature of Christ: in Him, man, though still man, is impregnated with this nature, his own nature counting almost for nothing. This was the starting-point of the Monophysite doctrine. These were points of variance too subtle, it would seem, to rouse multitudes. But the issue they raised was no less than that of the Redemption itself. If Christ was primarily and principally God, He could not have suffered on the Cross. If on the other hand He was primarily and principally man, He could not redeem humanity.

These divergences were the more serious, because, in the eastern Roman Empire, Egypt and Syria represented the two most prosperous sectors: Egypt enriched by its traditional transit trade to the Indian Ocean, and by the sale of its corn, an absolute necessity for Constantinople, and papyrus; Syria adding to its trade with Iran, and enriched by the mastery of western trade enjoyed by its merchants from the sixth century on, and by the rearing of silk-worms. Beside these two great powers, the Balkan region, ravaged by the passage of the invasion, and even Asia Minor, were but sorry figures of poverty.

Certainly, Hellenism was not played out. In Egypt, the school of Alexandria remained a bulwark of neo-Platonism, which had particular lustre shed on it in the sixth century by the philosopher and mathematician, John Philoponos. In Syria, Antioch played, if less brilliantly, an analogous rôle. Nor was

religious unity doomed. The emperors were faced with a grave problem, and, out of their effort to resolve it, was born the Byzantine empire and civilization.

The Byzantine reaction. In religion, a reaction towards centralization made itself felt. In 431, the Council of Ephesus, under the influence of the patriarch of Alexandria, condemned Nestorius. The emperor contented himself with ratifying the decision and taking measures against the Nestorians which forced them to flee to Iran, leaving the field in Syria open to Monophysite preaching. A sort of 'Alexandrian tyranny' ensued, until the Council of Chalcedon in 451 definitely established the dogma of the Incarnation—two natures united in the person of Christ—and relegated to a position of heresy what was to be thenceforward the Monophysite Church. The same Council established the supremacy of Constantinople in eastern Romania; its bishop, appointed by the emperor, ranked, in fact, as second authority in the universal Church, 'because this city is sovereign'.

A few years later, coronation of the emperor by the patriarch became the essential element in accession to the imperial throne, whereas hitherto it had been a military event. The development of the luxury and ceremonial of the court reinforced the power of the Basileus, taking from it a partly new character.

Cultural life. The same reaction was expressed on the cultural level. The Empire became the preserver of the ancient heritage, purified by Christianity. Reorganized in 425, the university of Constantinople, with its sixteen Greek and fifteen Latin chairs, held a balance between the two cultures. Its rôle became one of added importance when Justinian closed the pagan, neo-Platonist school at Athens in 529—a school still distinguished in the fifth century by Syrianus and Proclus—and an earthquake destroyed the School of Law at Beirut in 551. Bringing to a head a long labour of juridical compilation and unification, a commission of jurists at Justinian's command published a *Corpus juris* (529–35), which stands as one of his greatest claims to fame. The code contained the constitutions of the Roman emperors from Hadrian onwards; the digest, the opinions of the jurists and the findings of jurisprudence. The institutions form a sort of manual for students and the novels were to be the collected constitutions promulgated since 534. With the exception of this last part, the *Corpus juris* was in Latin. This remained the official and administrative language, becoming more and more artificial, and less and less understood in eastern Romania. The official language of the future was Greek, a literary Greek which the imperial government strove to preserve in rigid purity from contamination and local deformation.

Byzantine art. Finally, Byzantine art was affected by this centralizing policy. An imperial art, developed principally in Constantinople, spread through Justinian's empire, contemporary with his huge building programme. It was a religious, even a theological, art, pledged to the expression of the verities laid

down by the councils, the image of the Virgin, Mother of God (*Theotokos*), and the Passion as redemption. It was also a synthetic art which, while retaining certain Greek traditions (the art of modelling and the feeling for proportion), as well as Roman ones, takes most from the Asiatic countries: from Syria some church plans, from Asia Minor, upper Mesopotamia, and Iran, construction in brick, the taste for the continuous decorative motif and for the effects of colour.

The results of the reaction differed somewhat from those envisaged by the more deliberate promoters of it. Despite alternate violence and concession, Egypt held faithful to Monophysitism, and Greek culture there declined. Syria found in the very conflict that rent it occasion for the manifestation of an astonishing vitality, which was to come to a head in the seventh and eighth centuries with that country furnishing at one and the same time caliphs (the Umayyads), emperors (the Isaurians), and numerous popes, even as its writers made the Arab world aware of Greek science, and its Nestorian exiles carried their faith to the farthest points of Asia. The Arab conquest was to be for both the occasion for secession.

This anxiety to preserve and strengthen the cohesion of eastern Romanism, with Constantinople as centre, could only have as its effect the weakening of the traditional Roman unity, a deepening of differences already in evidence between the eastern and western parts, which as a result of the invasions, was itself developing.

2. INVADERS AND INDIGENOUS CULTURES IN ASIA

The dominant fact in the period of the migrations of the fifth and sixth centuries is the interaction between barbarian ways of life and thought and the cultures of the countries invaded. Circumstances were different, however, for the two great communities involved. India felt the effects of the confrontation only, as it were, at a remove; China, on the other hand, took the full force of the shock, and this modified its whole life and culture. As always, economic and social factors were bound up with political and religious ones. The decisive religious factor operated quite differently, however, in east and west. While in the west the Christianity that had been its civilizing force stood as one of the pillars of the Roman stronghold, in Asia Buddhism, having civilized the federated barbarians, now served the invaders as the instrument of penetration for the barbarianization of China.

A. The Barbarians and India

In India, the effects of the invasions were essentially negative. The passage of the Huns weakened the sub-continent politically, economically, and spiritually—monks were massacred, monasteries destroyed. It also had other repercussions, less immediately apparent, but more far-reaching in their consequences.

On the political level, as has been seen, the passage of the hordes and Indian resistance contributed to the break-up of northern India into small units, and the establishment of a semi-feudal society. There was a further consequence, however, in a shift southward of the Indian political centre of gravity. Even as the Gupta unity disintegrated, as attempts at empire by Yaśodharman, by the Guptas of Magadha, and by the Maukharis failed one after the other almost as fast as they were made, and even as the Harsha empire in the seventh century died with its founder, two great blocs, the first one in the Marāṭhā and Kannada countries and the second one in the Tamil land, were forming in the south, to survive as such, through many vicissitudes, until the Moslem conquest. It was, in fact, in the course of the sixth century that importance became attached to the dynasties of Chālukya and Pallava, politically and culturally, since under the protection which these two dynasties afforded to art and letters, new modes of expression blossomed in the plastic arts and in literature.

The accumulated havoc wrought by the barbarians, and the costs of the war must seriously have impoverished the whole of northern India. The only available evidence is striking enough: the proportion of pure gold in Gupta coinage dropped from 72 per cent to 50 per cent.

On the other hand, it was through the persecutions of Mihirakula that India sustained what was unquestionably a far more serious loss. Buddhism was never to recover from the blows dealt her by this enemy, who traditionally is considered its worse opponent. Hsuan-tsang, who recalled this tradition, recounts how Mihirakula 'published a decree ordering the extermination throughout the kingdoms of the Five Indias of all who should continue to observe the law of Buddha and the suppression of all members of religious orders, so not one remain'. The pious Chinese historian knew that what he was watching was the beginning of the end, and nostalgia informs his story. Buddhism was gradually to be eliminated from India proper; it survived longest in Bengāl and Kāshmir—up to the thirteenth century.

These three orders of consequences of the Ephthalite invasions—political, economic, and religious—all played a part in producing a resurgence of the vigour of Indian influence in the Indianized kingdoms of the Far East and Indonesia.

By now, Indian expansion in Indo-China and the Archipelago, with its twin impulsions, Buddhist evangelistic zeal and economic drive, was already of long standing. It was, in fact, an amplification of trade connections dating back into prehistory and never entirely severed. The Chinese Annals refer to the kingdom of Fu-nan, on the lower Mekong, in the first century A.D., and the same sources record other states in the Malay peninsula, and Lin-yi, lying in what is now Annam. The imperialist policies of Samudragupta had perhaps already set up a new flow of emigrants from the Deccan to these states, where the incomers could expect to find societies already highly Indianized, and to meet their compatriots. The Buddhists, in particular, who were not held back by any considerations of ritual purity, would have been particularly attracted to

an area in which they knew they would find co-religionists. At all events, Funan had in the sixth century a first period of grandeur, and a Sanskrit inscription informs us of the founding of a Buddhist convent in the first half of that century. At this time, too, there emerged in Siam the essentially Buddhist kingdom of Dvāravatī.

Expansion Northwards

Indian expansion in the Far East thus took fresh impetus from the scourge that visited India in the late fifth and early sixth centuries. Did the same visitation have the effect of curbing expansion northwards? It did, but only up to a point. Certainly, Indian influence on the plateaux of Chinese Turkestan, where kingdoms were established of markedly Indian character, made itself less strongly felt than formerly. But traffic on the China-India route was steadily maintained, even in time of Ephthalite power. Sung-Yun, in fact, setting out from China in 518, passed first through an Ephthalite kingdom before he found himself in the territory of Mihirakula. A century later, the greatest of the Chinese pilgrims, Hsuan-tsang, made the same journey. The threat of the invasions may have made Indian princes anxious to invite Chinese alliance: at all events, an Indian ambassador, sent by King Yueh-ngai, came by sea to Nankin. Another ambassador arrived in 466, and in 502, an ambassador of the Gupta presented himself at the court of the Liang.

The dangers involved in the detour by Afghanistan must have been an inducement to look for other ways of reaching China and India, the more so when some kind of permanent relationship looked like being established. The sea-route already taken by Fa-Hien, from the port of Tāmraliptī, south of the Ganges estuary, took on new importance. In addition, two new continental routes were opened up in the adjoining country to an international commercial traffic far surpassing in scale the traditional exchanges for which their rough surfaces had hitherto served. Certainly by the sixth century routes by Kāshmir and Annam had come into regular use. The search for a direct India-China route brought attention to bear on the disinherited territories that lay between these two great cultural blocs, and in the seventh century Tibet came within both the Indian and the Chinese spheres of influence.

The catastrophe that had befallen India had thus not worked exclusively to her disadvantage, and a new political and cultural equilibrium showed signs of establishing itself.

B. The Barbarians and China

Barbarization and Sinicization

Interaction in China took the form of the alternation of two opposite trends, sinicization and barbarization, with one or the other predominating according to whether it was the desire of the sovereign of the moment to assimilate the culture of the conquered country or to impose upon it a form of civilization which incorporated more of the barbarian spirit.

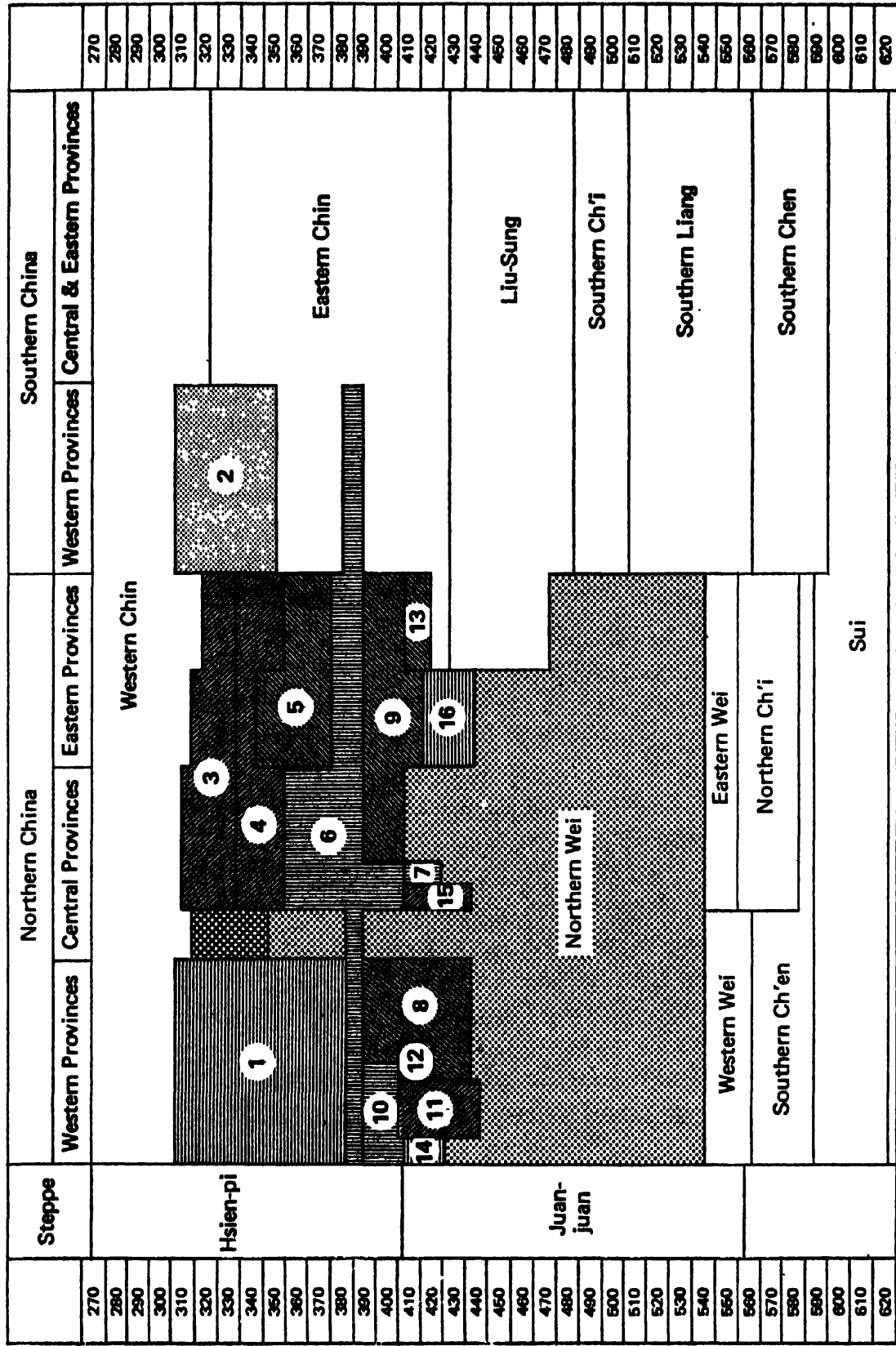


CHART 1. Peoples and dynasties in China, third to seventh century

In the sixth century A.D. the antagonism between the two peoples was not new, but the seizing of the whole of the Yellow River basin was the first in what was to be a long series of interventions. From the third century to the present day, under the Turko-Mongol Wei (fourth to sixth centuries), the Kitan Liao (tenth to eleventh centuries), the Jurchen Kin (twelfth century), the Mongol Yuan (thirteenth to fourteenth centuries), and the Manchu Ch'ing (seventeenth to twentieth centuries), northern China was to experience ten centuries of foreign occupation, as against seven of independence. The astonishing homogeneity China preserved throughout these vicissitudes can be attributed to the exceptional power of cultural absorption. The country seems to have 'Sinicized' whoever settled in it. Its devotion to writing, literature and calligraphy, powerful instruments of both administration and thought, conquered all its neighbours. The founders of the Wei dynasty (fourth to sixth centuries) experienced with the rest the attraction of the *wen*, the very essence of the cultivated man, the keystone of a whole civilization. All that proceeded from *wen*: history and archives, observation of the heavens and the calendar, correspondence and the civil service, philosophy and literature, the cult of the family and its ritual, the whole range of ideas, fascinated the barbarian. Similarly, what was exotic about the barbarians had its attraction for the Chinese; foreign objects and the ways of thought of distant lands made a deep impression. Certain dubious customs even produced a change in the traditions of the sedentary people. The T'o-pa, for example, used to put the wife of the king to death on the birth of an heir presumptive. The chieftains had in consequence always to take for wife either a prisoner or a princess from a distant country. The king himself was eliminated when the eldest son reached his majority. Such cruel practices explain the ease with which the first emperor of the Chinese Sui dynasty was, in 604, killed by his son, and the deadly conflicts waged between T'ai-tsung and his brothers while their father was abdicating under threat of death. However and despite these excesses, Sinicization clearly quickly established its sway over barbarian ways. A quest for security perhaps lay behind the predilection of the barbarian emperor Hsiao-Wen for the Chinese cult of ancestors and the exactions of filial piety. This ruler was a resolute partisan of Sinicization, and his name historically has the same ring about it as that of the westernizer, Peter the Great. He ordered the transfer of the capital from P'ing ch'eng in the Vhansi to the traditional Lo-yang, and took the Chinese family name of Yuan. He proscribed the use at court of the language of his ancestors, forbade the wearing of barbarian costume, and refused to allow the T'o-pa lords to be buried in the northern land of their forefathers. These spectacular measures came in fact as the culmination of a long process of gradual erosion; they did not represent any abrupt revolution. Prior to them, the T'o-pa had already had two centuries of Sinicization, two centuries that had set them above the other barbarians. Those barbarians who had succeeded in establishing themselves on the borders of China doubtless represented so many Sinicized kingdoms. The success of the T'o-pa was something

they owed probably rather more to their proximity to the Chinese capital than to any special talents. Indeed, from the moment they settled they were bent on a rapprochement with the Chinese. As early as 261, their chief, Li-wei, had sent his son to the imperial court bearing tribute of allegiance. At the beginning of the fourth century their troops aided the Tsin (256–316) against the Huns, this dynasty rewarding them with the title of Tai-wang, King of Tai. At the end of the fourth century, their sovereign, Shi-yi-chien, instituted a system of officials to whom he entrusted the conduct of affairs, trusting entirely to the good faith of the vanquished. He enacted penal laws on the Chinese model against rebels, criminals, and bandits. Lastly, he forced shepherds to become labourers.

In 394, the Emperor Kui set up colonies of labourer soldiers; in 398 he distributed land and livestock to 100,000 families, appointing in the eight districts of his empire an inspector of agriculture, charged with dispensing rewards and punishments according to yield. The basis of taxation was still cattle-rearing, but the system of labour service was Chinese. Before the advent of the sinophile Hsiao-Wen, then, the country had undergone great agricultural development, as much at barbarian hands as at Chinese. The great emperor who is credited with the Sinicization of the barbarian dynasty of the Wei in fact merely put the final seal on the two centuries of adaptation of his predecessors. The economic and social changes effected by the Wei also take their place in the main line of development of northern China: the line that had been followed by the western Tsin, and which the eastern Tsin were to develop in southern China. The radical and most original transformations brought by the Wei to the Lao-Tzu were in the intellectual area; they stemmed from religious policies favouring the development of Buddhism.

Economic and Social Changes

The period immediately prior to the establishment of the T'o-pa had been for northern China a greatly disturbed one. Its population had suffered the worst forms of pillage and destruction. The Tsin sovereign and the ruling class had fled to the south, where they founded the dynasty of the eastern Tsin. The court and its émigré entourage (*chiao-jen*) had then established themselves in a new country. The territory was organized in 19 provinces (*chou*), 140 prefectures (*chiün*), 33 principalities (*kuo*), and 1,109 sub-prefectures (*hsien*) on a double imperial and feudal basis. Wishing to make use of the local chiefs, the central government left all authority in their hands, exacting only tributes levied on the products of the land and its surrounding sea—pearls and ivory, livestock and kingfishers.

Public administration of the western Tsin was ensured by officials nominated from the capital, but their rank stemmed from duties, not from their titles. This system constituted a balance between the security given by ruling with the support of kinsmen and the risk of a take-over of power by those very same kinsmen. While it took all due account of the powerful provincial authorities,

the court continued to practise its policy of protégés. These servants, agricultural workers, overseers, and the staff of the great families, were recruited from the common people of the capital. Exempted from taxes, they were assigned various tasks in the homes of government officials who could, according to their rank, use from five to forty families of retainers.

Taxes were levied on a system of assessment affecting adults from eighteen to sixty years of age; young people between sixteen to eighteen paid only half, and the old were exempt. The dues payable comprised taxes and rates levied on land. The taxes were in kind: about five yards of cloth, an ounce and a half of silk yarn, and five and a half ounces of silk floss. The land rates were paid in two forms: about 300 pounds of corn per head and about nine pounds per *mou* of land (733 square yards); there was in addition twenty days' labour service. As a general rule, the state took 40 per cent of taxation revenue and the local authority 60 per cent. The system and its application were extremely complex. In the fourth century, in 376 and 383, the measures by which the tithes were replaced by *per capita* levies were extremely harsh, but it is to be noted also that the legislative texts, here as elsewhere, lent themselves to flexible interpretation by the authorities. It was this flexibility that doubtless enabled the various medieval dynasties to keep the actual amounts paid by the taxpayer constant.

The modifications introduced by regulations of the fifth and sixth centuries show simply an increase in the importance of slaves and livestock. The great concern was always with such readjustment of the allocation of land as would lead to the more effective use of arable land, the checking of the growth of big estates, and the better distribution of crops; all, as Balázs points out, with the intention of counteracting tax evasion.

Such were the conditions the T'o-pa met with when, after suffering under so many other conquerors, they came on to Chinese soil. The first concern of the new masters was to increase herds, make sure of pasturage, and reduce the Chinese to impotence. From the middle of the fifth century, however, their failure to attend to the agrarian problem led to seizure of land and hence to tax evasion. The benefits of the normal exploitation of land were something the conquerors were unaware of, and the big estate owners intercepted the dues of the taxpayers, continuing the policy of protégés. Antagonism between stock-breeders and cultivators further complicated the situation, while in Honan, Hupei and Shantung population rose to danger level. All the definitions of densely populated districts (*hsia-hsiang*) and sparsely populated districts (*kuang-hsiang*), i.e. districts where agricultural population was over concentrated or loosely distributed, were modified.

Reform became a necessity, and it was the Emperor Hsiao-Wen who undertook it. In the best Chinese tradition, he applied himself to the agrarian problem, and in 485 he issued the order known as the edict for the equalization of lands (*chun-t'ien*). His intention was to reduce the area of uncultivated land and break monopolies. While endeavouring to take from the big landowners

some of their surplus, he nevertheless favoured the barbarian occupiers in the legal proceedings. Retaining the old division of holdings into hereditary (*yung-yeh*), reserved for fruit and mulberry trees, and precarious (*k'ou-fen*), reserved for tillage, he assigned to each adult from fifteen to seventy years of age twenty *mou* of hereditary land and forty *mou* of precarious tenure; women received a little under half. In addition, thirty *mou* were allowed per head of cattle up to four. Each year, the precarious land of those who had reached the age of seventy was redistributed. Calculations were based on the requirements of a typical household having four children, four male and four female slaves, and twenty oxen, the allocation for which would be 465 *mou* (about 62 acres), allocations being doubled or trebled according to the quality of the land.

Certainly this new legislation enabled the conquerors to make good some of the tax losses and to put agriculture on a sounder footing. There was still, however, sufficient latitude left in the matter of legal interpretation to prevent the reform fully achieving its object. There were, firstly, the social inequalities arising out of the different privileges granted to the court and to high officials; secondly, the discrepancies in the application of the law as between densely and sparsely populated districts; and thirdly, the anomalies caused by the classification of the land of the holdings as rich, average, or poor. As in all agrarian dispensations, it depended for its effectiveness on the manner of its application, and this remained highly arbitrary. It had at least, however, the advantage of promoting a higher tax yield, collection of which was entrusted by the terms of the same law to three responsible individuals (*san ch'en*) per group of 5, 25, or 125 families. Each dynasty now strove to take into its own hands the collection of taxes. Hence, for instance, the agrarian reform of 564 undoubtedly came when the Pei Ts'i proceeded to the establishment of new allocation norms, which worked out at about 37 acres for a family of three adults, two children and an ox. These would seem more generous terms than those of the fifth century, but they gave rise no less to sales of hereditary holdings, transfer of precarious ones, and the reforming of great estates. In northern, as in southern, China, the agrarian order inherited from the western Tsin was then improved on, but it still bore within it the seeds of the crying inequalities that were, in the end, to unleash popular revolt. Socially, the arrival of the barbarians had the double effect of superimposing a new layer on the society of the north, and in setting off at the same time an emigration movement southward, effects that had their repercussions throughout the social equilibrium of the whole of China.

The early troubles of the later Hans had already brought into being wandering families (*liu li chia*) and protégés (*yin-jên*) who sought with the great families the security the state could not offer. The great families had entrenched themselves securely, fortifying their residences and arming companies of retainers (*pu-chu*). From the third century they constituted a sixth of the population, holding all the rest under their protection. The effect of the inva-

sions was to consolidate this structure, and so create, between the free men (*land liang*) and the slaves (*nu pei*), an intermediate class of clients (*pu-chu*) and miscellaneous families (*tsa-hu*). Free men were then far from equal. The Three Kingdoms had already seen a multiplication of titles of nobility in what was a kind of re-feudalization. The response to the disruptions of the invasions was a hardening of the social structure. The old families resisted the intrusion of the *parvenus*.

In southern China, five rigidly marked classes emerged: the Old Families (*ch'iu men*), the Secondary Families (*ts'en men*), the Recent Families (*hou men*), the Deserving Families (*hsu' men*), and the families of those liable for *corvée*, the Commoners (*yi men*). The emphasis on antiquity encouraged the production of genealogical tables (*tsung p'u* and *tsu p'u*), some of them carried out to imperial orders.

The émigrés retained a certain superior position. Under the eastern Tsin, even when they were plebeians they benefited from an exemption of labour service. This was a situation, however, making for a weakening of the dynasty. The number of conscripts (*yi men*) levied for this compulsory work became manifestly inadequate for the defence of the territory, and the émigré plebeians had their privilege of exemption withdrawn.

In northern China, the hierarchy differed with racial affiliation. Under the northern Wei, the barbarian aristocracy comprised eight classes, the chiefs of which formed the Emperor's Council. The Chinese aristocracy had the same close pattern as that of the south, but with the difference already more sharply in evidence socially: the marriages between nobles and commoners, which were frowned on in the south, were here expressly prohibited.

Under tutelage in the north, over-numerous in the south, the Chinese aristocracy of the period formed a more and more closed and inert society. This doubtless explains the great number of its members who threw themselves into a life of intellectual enquiry, religion, or the practice of art. Their activity here played a major rôle in the development of Chinese culture. Just at this point, when as a result of the relentless mechanics of substitution, Chinese homogeneity was showing signs of being weakened by superficial changes into a more individual and inquiring phase, the barbarians entered the picture with their adoption of local customs. There was fusion where two currents met—the Chinese 'going barbarian', out of curiosity and the barbarians 'Chinese' from ambition.

Introduction of Buddhism

Up to the beginning of the fifth century, Buddhism had made its way in China, in a sense, under false pretences. From the second century, it had been regularly confused with Taoism, and the two regarded as one religion. In fact the Taoist goal was survival of the human personality, while personality was something the very existence of which was denied by the Buddhists. The one claimed to prolong indefinitely the existence of the body and make it immortal;

the other considered the body, like all things made up of many parts, essentially ephemeral. But it was difficult to convey the nuances of Indian thought to the Chinese; the very notion of spirit (*shen*) was *a priori* inadmissible for a Confucianist, to whom it was no concern, or to a Taoist for whom spirit was never entirely divisible from matter. One or two thinkers apart, it was principally as a religion of amulets and sacred statuary that Buddhism had held its own, in alliance with the magical and polytheistic Taoism. And the alliance from being an aid, shortly became the reverse, since Buddhism found itself in consequence involved in the conflict between Taoism and Confucianism. Confucianism was emerging from a long period of stagnation; the lowering of its vitality had already in the third century given rise to a wave of interest in Taoist studies. Confucianists, such as Tsan Hsun, sought there answers to questions of the origin and meaning of human life of which they found no mention in the classics. The school of the Arcana (*hsuan-hsueh*), in which these metaphysical studies were pursued, continued the activity of the salons of Pure Conversation (*ts'ing-tan*), which welcomed so readily all new philosophical ideas. Intellectual conditions in the disturbed period following the fall of the Hans thus helped to create a climate favouring the penetration of Buddhism. And the same was true of the prevailing psychological and political conditions.

The wars, with their trail of suffering, famine and pillage, had induced that sense of impermanence and mobility that gives rise to a search for a spiritual stability and an ardent quest for peace. This stability the Buddhist communities could provide. Their rules were less detailed, their ceremonies less exacting, and the obligations they imposed less onerous than those of the Taoist church, and in the minds of the people these communities seemed to be of Taoist affiliation, and support of them entailed no departure from traditional beliefs.

By their irruption on to Chinese soil, then, the barbarians had created conditions favourable to the spread of Buddhism. This in itself, however, would not have sufficed to ensure the new religions' hold. Its establishment in its eventual position of secure supremacy required the active and powerful support of the foreign dynasties. It is true that, before the invasions, the Chinese Tsin dynasty (280-317) had given Buddhism an important place. The capital, Chang-an, vied with the old centre of Lo-yang, and three centuries after its introduction Buddhism had 180 monasteries and nearly 4,000 monks. But, in two centuries, the barbarian courts multiplied these figures a hundred-fold. There were a number of good reasons for the barbarian sovereigns' support of the new religion. It was, for them first of all, a means of detaching the people from Confucianist tradition and weakening xenophobe elements. It was also one way of obtaining the valuable assistance of an educated priesthood which was distinct from the old Chinese civil service. And, lastly, the pacific injunctions of the Buddha were likely to ease the way to a return to peaceable living and to discourage revolt. To which sound reasoning should be added the fondness of the barbarians for magic and divination. The monks

of the fourth century, indeed, often passed themselves off as *thaumaturges* or doctors.

Medicine was also sanctioned by the Great Vehicle as an instrument of conversion, and missionaries did not hesitate to present themselves as having come to heal the body as much as the spirit. Such was the approach of the monk Fo-t'u-teng, the favourite counsellor of the Hun, Che-hu, who stamped out an epidemic. Later, in Japan, Buddhism was to owe its first lasting successes likewise to happy medical practice.

The reigns of the first Buddhist sovereigns saw the institution of genuine works of public welfare. In about 460 Tan-yao, administrator of the priesthood (*Sha-men t'ung*), built up from donations a reserve store of cereals for distribution in case of famine. Services rendered by the priests were not confined to such practical social measures; they made their contribution to the strengthening of the political authority by identifying the monarch with the Master, or Tathagaba. The sovereign, imbued with the idea that, as a barbarian, he owed his allegiance to a barbarian god, could nevertheless enjoy the advantage of receiving from the faithful the respect and obedience owed to the Buddha.

Officially recognized by an edict of tolerance in 335, protected and organized as a state religion under the direction of a pontiff (396) for more than two centuries, Buddhism underwent remarkable expansion. Not only did temples and religious foundations multiply; there was also a gain in depth, the primitive and superstitious Buddhism of the Fo-t'u-teng period giving way in the fifth century to a truly religious form. This transformation was largely the work of the monk, Tao-an, and the translator, Kumārajīva. In the reign of the Tibetan sovereign, Fu-chien, Tao-an made a compilation of Buddhist works in a Chinese translation, the first 'Chinese canon'. He perceived the low intellectual level of the Chinese texts, and, anxious to see the Sanskrit texts in clear and orthodox translation, invited Kumārajīva to join the school of Chang-an. Kumārajīva, who came of an Indian father and a Kucha mother, had lived long in Kucha, and discovered there the superiority of the teachings of the Mahayana, of the school of Nāgayāna, over those of the Hīnayāna. Brought as a prisoner to China by troops of the Tibetan kingdom of the Hou Tsin, he spent eighteen years in Kansu. Kansu was then Liang-chou, a border country in which the Silk Road started—the route of all communication with central Asia. The last stage on this route in Chinese territory was Tun-huang, a great centre of monks, many of whom were also translators. In 385, the government of the province proclaimed its independence, and the towns of Wu-wei-hsien and Ku-tsang became in their turn important Buddhist centres. It was here that Kumārajīva came into contact with Chinese culture and mastered absolutely the language of his masters. He went to the capital, and in 401 was welcomed with great ceremony as National Preceptor. The sovereign assembled all the Buddhist scholars, and placed an official translation office under Kumārajīva's direction. The work of this office was far-reaching in its results;

the year 401 is rightly regarded as opening a new era in the history of Buddhism in China. The Chinese were now able to make direct contact with Indian thought, and to assimilate Buddhist ideas, undistorted as they had been hitherto in the Taoist mirror. Sinicized at the hands of the thinkers, Chih Tun and Chu Tao-sheng, Chinese Buddhism was now to become more Indian. With the work of translation went a search for new texts, pilgrims and missionaries bringing India and China into closer contact. Certain monks became dissatisfied with the existing Buddhist rules, and were determined to go in search of true laws. Fa-Hien set out in 399 on a journey that was to take him fifteen years, stopping sometimes for months, sometimes for years, in the great religious centres that studded his route—at Tun-huang, at Khotan, at Kashgar, at centres of pilgrimage in India, at Nālandā, and in Ceylon. His account of his travels conveys the thousand difficulties of the different stages. Sometimes there were weeks of marching through the desert, sometimes months at sea tossed by storm and tempest; but his deep faith guided him through these obstacles and enabled him to fulfil his mission and to return to the capital with many new texts.

Other monks sought a better understanding of the Buddhist teachings through withdrawal into seclusion. There was Hui-yuan, who founded the sect of the Lotus (Hua-lien) in Lushan. By his meditations on Amida, the Buddha of the Present who saves sinners by calling them to the Paradise of the Pure Land, he became the spiritual founder of the sect of the Pure Land (Tsing-T'u, in Chinese; Jōdō, in Japanese) which was to spread the cult of Amida throughout the Far East.

Chih-yi (538–97) retired to Mount T'ien-t'ai in Chih-chiang, founding a sect there and interpreting the Sūtra of the Lotus of the Good Law. The different teachings of the Buddha were classified into five stages, corresponding to the degree of knowledge of the disciple, and leading to enlightenment. According to the importance it attached to each of these stages, and sometimes in keeping with the particular leanings of the founder, each sect laid stress more particularly on one or another of the Sūtra.

Certain monks, without founding separate sects, established schools where intense study was carried on, often by an analysis of texts tending to syncretism or simplification of the principles of Indian thought. From these schools, sects sprang later; one such was the sect of the Meditation, or Dhyāna (in Chinese, Ch'an; in Japanese, Zen), which had its roots in discussions of the sixth century, and nominated as its founder Bodhidharma, a personality whose historical existence is problematic.

This stimulating intellectual activity found a parallel in popular devotion. Small sanctuaries multiplied, great edifices were embarked on. In two centuries, under the barbarian occupation, the expansion of Buddhism in north China was given tangible expression in 47 great monasteries, 839 small temples, and 30,000 sanctuaries, and membership of religious orders to the number of two million, to say nothing of the great cave temples, like those of Tun-huang,

Mai-tsi-shan, Yun Kang and Lung-men, jewels of Chinese art. It is a new faith that is here glorified; the initial statue deifying the sovereign gives way gradually to a new cult, in which the sovereigns themselves are worshippers; the image of the Buddha Sākyamuni is succeeded by that of the future Buddha Maitreya.

But the spread of Buddhism was not confined to north China. In the south, a similar diffusion of the Buddhist traditions established by émigrés from the eastern Tsin dynasty took place. Though the sovereigns of the southern dynasties were not less active than those of the north, different conditions led to less spectacular results. In the middle of the sixth century, under Wu-ti of the Liang, there were 2,846 temples and 32,000 monks. Despite the efforts of the preachers, Buddhism remained an aristocratic religion to a greater degree than in the north, and seems to have been the perquisite of intellectual circles. Unlike its northern counterpart, on the other hand, southern Buddhism did not undergo extensive Indianization. A few monks, such as Hui-yuan or Tao-sheng, were in touch with the northern centres, but the majority did not know Sanskrit and rarely came in contact with foreign missionaries.

The task of nurturing Buddhism was the work of the emperors, who celebrated elaborate and ornate propitiatory ceremonies in the hope of assuring the safety of their dynasty and empire. It rested essentially on an intellectual priesthood who sought to reconcile Buddhist principles and Chinese ideas, and dreamt of a religion that would restore unity and harmony to society. The Confucianist figure of the sage (Chun-tzu) was succeeded by the rich merchant, Vimalakīrti, a brilliant orator and accomplished personality, who radiated such goodness that it made better men of all who came in contact with him. Whatever benefits the new religion conferred, however, in north or south, the medal was not without its reverse side. The great Buddhist building achievements had their counterpart in desperate poverty among the peasant mass of the population; the conspicuous expenditure which took precedence over charity was reflected in a decrease in wealth and in increased *corvée*. This became so intolerable that it was not unknown for a man or a beast to drop dead at his task.

The amassing of wealth, from revenues and donations, was paralleled by interest on loans and, soon, by usury. Possession of real assets gave rise also to doubtful commercial operations. The whole Buddhist economy was geared more to profit-making and the acquisition of new possessions than to production.

The growth of commercial and craft activity, due to the attraction of the Buddhist centres, led to the establishment of markets, shops and stalls, surrounded in their turn by makers of statuettes, sculptors of clay figures, engravers, public translators and writers. The centres engendered a rise in consumption to the detriment of production. Chief of the ill effects were probably the loss of manpower and the drop in tax revenue. Members of religious orders were in fact exempt from payment of taxes and from labour service. The peasant, by entering an order or simply by taking refuge in a monastery, could

evade military obligations, inconvenient labour of all kinds and, above all, the payment of taxes. Alongside the official religious orders maintained by the state, a purely nominal form of monasticism soon developed. Buddhists represented a very small proportion of the population—about a hundredth, perhaps—but their uneven social and geographical distribution placed a heavy burden on an already precariously balanced economy.

All these inconvenient concomitants of Buddhism provided an excellent platform for the opposition, which in both north and south was not slow to exploit it. Because of differences in social structure in the two Chinas, however, the opposition in each territory took different forms. In the south, the emperor's power rested on a very strong aristocracy which could, in the last resort, support the Buddhist expenditure. The opposition consisted merely of anti-Buddhist propaganda of an academic, non-violent nature. An example of the pamphlets which were circulated was the *Yi hsia lun* (407) of Ku Huan (390–484), in which the author, reviving the ideas of Mou-tzu, endeavoured to prove that Buddhism, being a foreign religion, was inferior and therefore unacceptable. In fact he identified it with Taoism, emphasizing that the Buddha is the Tao and the two complementary. This syncretism, in fact, gave the advantage to Taoism, postulating Buddhism as a means of eliminating evil and Taoism as a means of developing good. Another pamphleteer, Fan Shen, went to Confucianism for his arguments. He reminded his readers that the principle of transmigration implied an indestructible soul, while a Confucianist could not imagine the beyond, being unaware that he was worthy of what life is. In the *Shen-mie lun* he considered the body and soul, comparing them to blade and edge, and arguing that, without the blade, there could be no edge. His writing had so marked an effect that the emperor Wu of the Liang assembled a team to answer his arguments. It was Hsun Tsi (d. 547), finally, who in the *Lun-fo-chiao-piao* advanced the idea that Buddhism sapped governmental authority. He maintained that Buddhism usurped the cult of the emperor and the imperial authority, that it broke up the traditional structure of the family and that it undermined the economy by diverting energy from productive to useless activity.

The same problems arose in conquered China. But in the north, as Kenneth Ch'en has pointed out, the position of the Buddhist church was different. It was under the authority of the state and had to look to it for support and security. Its position was therefore more precarious, since the whim of the sovereign could do it serious injury. The aristocratic nature of the foreign masters permitted them greater excesses. Finally, the desire of the emperors of the sixth century for Sinicization led both Confucianists and Taoists to try to turn the emperor against Buddhism. From the fourth century, control of the church by the state led to the limiting of ordinations and to the elimination of other religions which were considered undesirable. The priesthood was administered by an official office in the capital (*chien fu ts'ao*) and by regional offices (*seng ts'ao*). The policy of the priests was to associate themselves closely with the

reigning prince. So Fo-t'u-teng identified himself with the interests of the founder of the Hou Chao (328-52), in the capacity of both military and political adviser, and Tan-yao became religious chief of the northern Wei. Everything depended on the goodwill of the reigning prince. Advisers had only to put it to him that the Buddhists constituted a threat to the dynasty for anti-Buddhist policies to come into force and prohibitive decrees to be enacted. Instances of this are the persecutions of the Pei Wei Wu-ti over the years 444-6, and of the Wu-ti of the Pei Chou between 574 and 577, the defrocking of 1,372 monks in 486, and the decrees in 492 regulating the numbers of monks.

Peripheral Impact

The establishment of the barbarian kingdoms and empires which divided China also had effects which were felt in the peripheral provinces of the old Han empire. The response of the governors of these regions to the weakening of the central power and to the resultant disunity was either to assert independence or to abdicate in favour of native inhabitants in revolt. So there emerged in Turkestan, Korea and Indo-China ephemeral kingdoms which played the part of intermediaries between Chinese culture and the Turkish, Japanese and Indian worlds.

C. The Barbarians and Central Asia

Central Asia was, from the fourth to the sixth centuries, occupied by the barbarian Ephthalites. These were in fact, as R. Ghirshman has indicated, Chionites. They were leading their nomadic life in Kashgaria when pressures, stemming from movements of the Huns, drove them towards the Yaxartes (Syr-Darya) and the Oxus (Amu-Darya).

The sixth-century Byzantine historian Procopius has left a description of them, as follows: 'They have white skins and their eyes are not slits. Their way of life is not like that of the Huns, they do not lead a life like the beasts as the latter do; they have a government with laws and they live one with another and with their neighbours, uprightly and justly, no less so than the Romans.' In the *Pei-shih*, a seventh-century Chinese text, it is noted that their language differs from that of the Juan-Juan and the Kaq-ch'e, whence it follows that they were linguistically of the Iranian family. The Chionite barbarians were thus relatives of the Kushāns and the Sākas, and, by descent, of the populations of India and Iran also. Whatever their way of life, they had thus more in common with the peoples of the territory invaded than their successors, the T'u-chueh.

The misleading designation of them as White Huns has not only done these peoples a disservice, it has also falsified our perspective, since it implies a unity where, in fact, there was from the beginning a division of these barbarians into two groups, separated by the Hindu Kush. In the north was the

kingdom of Ephthal, from whom the Ephthalites took their name; to the south stretched the kingdom of Zābul, who gave the Zābulites their name. These last, alone, were the Huns with whom the Hindu princes battled, and whose reign came to an end with the defeat of the forces of Mihirakula.

The Chionite Ephthalites

As for the Chionite Ephthalites, they had doubtless been in Bactria since 371, living there as the allies of the Sassanid kings. In the fifth century the Iranian sovereign had contrived to contain barbarian expansion, but, by the end of that century, Iranian hegemony was weakening and the Chionite vassals ceasing to render their tribute. At the death of Peroz (484), rôles were reversed and Persia became, so to speak, the vassal of the new Chinese empire, whose dominions stretched from the Caspian to the Tarim.

At the pivot of the great trade highways of the ancient world, the Chionite Ephthalites made probably a significant contribution to the development of central Asia by shielding this region from Sassanid conquest. They could be reproached for excesses committed in the course of their advance, and for misdeeds committed in the course of raids on bordering countries, but, in their exercise of power in the territories they occupied, they must be credited with having shown considerable liberality. Worshippers themselves of the spirits of the sky and fire, they placed no obstacle in the way of any belief. In their territory, Zoroastrianism, Manichaeism, and Nestorianism were all harboured and Buddhism flourished to such a degree that it was honoured by the sovereign. Their religious practices were probably better organized in the south. There the cult of the solar god called 'Sun' had had its influence on the emergence of the cult of Maitreya, a synthesis of Iranian and Indian elements. Their institutions were modelled on those of their neighbours, and, from the Sassanid court, they had also taken ceremonial and the use of golden thrones and sumptuous vestments. Their way of life in its turn influenced the Iranians. The practice of polyandry in Ephthalite society meant that women there had a special rôle; one woman, for instance, would marry a group of brothers, all the children belonging to the eldest brother. In the very great freedom that prevailed, moreover, no premium was set on chastity, and women were at liberty to form adulterous associations. This attitude to the female has something in common with one of the rules of the Mazdakites, which required that their women should be held in common. These Iranian revolutionaries launched their movement at the time when the Sassanids became tributary to the Ephthalites.

Trade Routes to the East

The rôle of the barbarians in central Asia was not confined to these few interactions; nor did their conquests always bring destruction and desolation in their train. The period from the end of the fifth century to the middle of the

sixth was, for the occupied countries, a period of prosperity. From the point of view of the trader, the unity of the territories, crossed by the great communication highways, was ideal. The axis of the caravan cities lay between Byzantium and China. The Afghanistan route linked the desert with India and even with the Indian Ocean, where Chinese junks were still making their appearance. Along the length of these routes, merchants and missionaries scattered products and sowed ideas. The towns were so many stages on the roads, sites of markets and temples. This commercial and cultural prosperity followed on what had been a general crisis in central Asia in the fourth century. It is too soon yet to be able to determine with precision the chain of cause and effect and the interaction of political, economic, and social factors; we can, however, get some idea of what happened in the region by tracing the story of one kingdom, Kharezm.

Kharezm

The history of this important kingdom of the Afrighids has just been brought to light through the excavations and researches of Professor S. P. Tolstov. He sees the early Middle Ages in Kharezm as falling into two phases. The first (fourth to sixth centuries) is marked by a crisis which involved the whole of central Asia; the second (sixth to eighth centuries) by an upward trend, with neighbouring kingdoms participating in varying degrees. The crisis is reflected in abandoned towns and the deterioration of the irrigation system. Its origins probably lay as much in changes within the social structure of antiquity itself as in those precipitated throughout Eurasia by the barbarians. Life in the old fortified towns was abandoned in favour of life in agricultural communities. Only a few garrisons remained in fortresses like those in Igdy Kala, doubtless raised in the fourth century by the Chionites in their struggle against the Sassanids, and in Baraktam, where three great buildings overshadow some forty houses. The centre of life became the village, where new social relationships were evolved. The head of the village was a landowner, who had built a manor for himself, at his own expense. The house, at first a building on a modest scale, assured protection for his person, his possessions and his household. As a building, it was inferior to those of antiquity; the unbaked bricks were smaller, the standard of comfort generally lower. The period of abandonment of the towns was marked by a deterioration in craft production; ceramics, for instance, became cruder in workmanship and design. The new potter-shapes—often cauldrons—show the barbarian influence. This influence is also to be seen in tonsorial fashions—sovereigns abandoned the traditional beard and are represented on their coinage wearing the moustaches which were typical of the invaders.

The second half of the sixth century saw the beginning of a new trend that was to last for a hundred years or more. The village communities began to develop a social hierarchy. The owner of the men, a minor lord, or dihgān, began to engage more workers, and a new class of craftsmen attached to a

master came into being. Fortified farms and manor houses multiplied; a count showed that one strip, of approximately 13 square miles, contained a hundred or so—more than seven to the square mile. Some of them were overlooked by keeps, in many cases they were surrounded by moats. The citadel (*arka*), the seat of a great lord, stood surrounded by the town (*sakhristan*), which housed the lesser lords of the neighbourhood, the administrators and the craftsmen. Beyond lay the suburb (*rahadû*), where the merchants congregated; this was the residential zone of the town, an area which gave it an irregular shape in contrast to its ancient predecessors. Despite the sharp increase in commerce, the country remained largely agricultural. The technical progress which was being made brought a rationalization of the irrigation system and increased use of iron in tool-making; and the millstone replaced the pestle and mortar. The fields of barley and millet multiplied, orchards of fruit trees of all kinds were planted, as well as market gardens full of water melons and cucumbers. There was grazing in abundance for horses, cows and sheep, and the farmer reared large numbers of pigs and goats. In the economic and cultural development of central Asia, however, Kharezm lagged somewhat behind neighbouring kingdoms. This comparative slowness of development may have been due to the ties the country still had with the barbarians of the steppe. Kharezm's story serves, nevertheless, to show how it was that the 'Kingdom of the Thousand Towns', celebrated by the writers of antiquity, became the 'Kingdom of the Thousand Cities' of the Arab historians.

Chinese Turkestan

A special fate was reserved for the eastern territories of central Asia, the Indo-European oases of Chinese Turkestan. Since the time of the Han dynasty, these oases of the Tarim had been under Chinese protection. This suzerainty, which was often formal, varied in its effectiveness according to the rivalry between neighbouring Turks, Tibetans and Chinese. Despite frequent raids and one or two primitive campaigns, this country, which was really a chain of relay stations on the great arterial trade highway of Asia, continued to enjoy a steady prosperity, in particular along the northern branch, along which stood Turfan, Karashar, Kucha, Kashgar and the great city of Khotan. The old Indo-European traditions survived, and dialects related to Eastern Iranian were spoken right across the territory. All the kingdoms paid their tribute to China; taking advantage of slight internal dissensions to assert their independence each time China sent troops to check the revolt. It was in the course of one such campaign that Lu Kuang, sent by the ruler of the Ts'ien Tsin (351–95) to subdue the Tarim region, carried back with him from Kucha the famous translator, Kumārajīva.

Throughout the fifth century, China was constantly taking action to keep this trade route open, not only because it assured relations with the west but also because it constituted a line of resistance, loss of which to the barbarians would mean the exposure of the whole western flank of Chinese defences.

Turfan alone was an exception since this, the northern most stage in the journey, could be by-passed.

The account of the Buddhist monk Fa-Hien, who set out from Chang-an in 399, shows that these caravan cities had already been long converted to Buddhism. After a month's retreat at Tun-juang, his caravan refurbished, Fa-hien set out to cross the desert, kingdom of evil spirits and malicious genii. There was neither animal nor bird to be seen, nor were there any landmarks, save only sun-bleached skeletons, to steer by. It took seventeen days to cover the 300 miles or so from Tun-huang to the Lopnor lake. Around this lake lay the Shan-shan or Lou-lan country, with its flat-roofed earth houses set among orchards, flowers and skilfully irrigated land, bright with corn. The inhabitants made the pilgrims welcome. After a month the caravan set out again on a new stage of fifteen days that brought it to Karashar, a Buddhist town housing more than 4,000 monks, who were under the rule of the older tradition called the Lesser Vehicle. Here the people were rough, and the strangers were given a poor reception. The next stage was harder, since there were several rivers to be crossed, but in thirty-five days they reached Khotan. This was a prosperous city, and its population cordial. Fields of cereals in great variety and abundance alternated with hemp and mulberry trees, and the markets were filled with horses and camels. It was almost the promised land; there, monks lived the communal life in their tens of thousands. They welcomed the travellers, prepared rooms for them, and looked to their every need. The members of the religious community were housed in fourteen great monasteries. Each of these had its feast day, marked by a great procession in which the king and queen participated. The king and queen processed bare-foot, in deep humility, scattering flowers, offering incense and kneeling before the holy images. Twenty-five days' journey from Khotan was Kashgar, where the king likewise took part in the worship of Buddha. After Kashgar the travellers were journeying among foreigners, and the hospitality varied. Another traveller, Sung-yun, in search of Sūtras for the court of Lo-yang, in 522, was welcomed by the king of the Ephthalites, who indeed knelt to receive his credentials, but at Gandhāra the king refused to receive him.

From the accounts of the travellers, which the archaeological evidence corroborates, it would clearly seem that in central Asia the action of the barbarians was not inimical to economic and cultural advance, but of assistance to it, by conferring on the different Buddhist kingdoms a measure of unity, thus paving the way for the great prosperity of these territories in the succeeding centuries, when they really formed the bridge linking great empires.

D. Korea and Japan (fourth to sixth centuries)

Korea was not directly affected by the barbarians, who were more concerned to establish their authority on the steppes or found kingdoms in the richer

provinces of China, but it was affected indirectly. The weakening of the Chinese empire favoured the emancipation of the native tribes, and the emergence of Korean kingdoms in turn also brought about an acceleration of economic and social development in Japan.

In the fourth century Korea was still under the Chinese yoke. Of the four prefectures established since 108 B.C., the most important, Lo-lang (Lak-lay), lay in the region of the present Pyongyang, and the others roughly covered the rest of the country. To the south, the Han tribes held their own, and, to the north, the Kokurye tribes threatened Chinese possession. In 313, the Chinese dynasty of the western Tsin abandoned all north China to the barbarians. Following the example of their neighbours of the steppe, the Kokurye tribes took the prefectures of Lo-lang and Tai-fang. Masters now of all north Korea, they established a kingdom which included the Manchu borders. Some years later, the southern tribes divided the peninsula between them, and founded in the west the kingdom of Paikche (346). The real beginning of Korean history dates from this period, which was known as the period of the Three Kingdoms and lasted until the middle of the seventh century.

The Three Kingdoms

The Three Kingdoms bore the deep imprint of Chinese influence. This had made itself most felt in the north, to the advantage of the Kokurye, through large-scale Chinese emigration in the face of the relentlessly advancing barbarians. A feudal system prevailed in which land was the property of the state, but was farmed out to peasants in return for payment in kind or by labour services, or conceded to nobles and important functionaries. The course of economic and social development in north Korea closely resembles that of the barbarian federates of China.

In the south, the kingdom of Paikche seems to have had a lower standard of living, and the constant state of friction existing between it and Kokurye must have held it back. On the other hand, its relations with southern China, where old traditions survived free from nomad interference, gave it a clear advantage, so far as industrial techniques were concerned, and favoured the emergence of an élite. Chinese script had been adopted in 374, and Buddhism officially recognized in 384.

The Sinicization of this kingdom is reflected particularly in the exchange of scholars that took place with the southern Liang dynasty (502-77), in whose domain Confucianism was showing signs of returning vigour. Paikche invited poets and experts in classical rites, including the most famous specialist in the latter field. In consequence, Confucianist studies reached a high level in that country. Numerous Buddhist masters also came to instruct the Koreans of Paikche in the law, and with them often came architects and painters, so that Paikche became, in the realm of ideas and scholarship, a smaller version of China itself. There probably, even more than in political intensity, lay the cause of the deep attachment which Japan conceived for the country inducing

her to concede half of her Korean territory for one illustrious man of learning. Technical assistance, too, was already an important factor in international exchange.

The kingdom of Silla was less developed than Kokurye and Paikche, as a result, doubtless, of its distance from China. Its position, however, was soon to enable it to reverse the rôles, for hostility between Kokurye and Paikche was, of course, bound to weaken those adversaries. Meanwhile, Silla contrived to extend its territory to both north and south (562). It ceased to be backward economically and it centralized its administration in the Chinese fashion, while its political and administrative hierarchy was cemented by the adoption of those Buddhist principles to which the whole peninsula had by then given allegiance.

Relations between Korea and Japan

The social and political changes in Korea had been effected in those barbarian regions which the Chinese termed the eastern reaches of the empire. This area also included more distant tribes, such as those occupying Japan. A number of these, grouped in a federation, had already received Chinese emissaries who had established ties of vassalage. These ties had developed through the Chinese colonies in Korea. The disappearance of these colonies and the establishment of the Three Kingdoms placed the Japanese in a highly advantageous position. They represented, in fact, precious potential military aid for whichever kingdom was first to solicit it. The Japanese tribes were fearful, moreover, that a complete unification of Korea would be the prelude to the invasion of their own country, which is undoubtedly why they responded to the call for assistance from Paikche, threatened by Silla. In 369 a Japanese army landed, drove back the troops of Silla and established itself in an enclave, still independent and not far from what is today Pusan. It set up the government of Mimanna, foreshadower of the twentieth-century General Korean Government. For close on two hundred years, the Japanese played a dominant part in Korean political life. But clinging stubbornly to their Paikche alliance they shared that state's end. Despite persevering diplomatic endeavour to enlist support for their position in Korea from the southern Sung, they were driven out by Silla in 562, though renunciation of their claims to Mimanna did not come until 646. Politically and militarily, their intervention in Korea ended in failure; on the other hand, they took full advantage of their sojourn in Korea to import all the cultural values of the continent.

From the fourth century many emigrants, Chinese fleeing from the attentions of the Kokurye, or Koreans from Paikche seeking a refuge, came to settle in Japan. They brought with them new techniques in agriculture, metallurgy, and textile manufacture and they helped the Japanese to organize themselves after the fashion of the Korean kingdoms, utilizing the procedures of the Chinese administration. Foreign scholars inaugurated archives and founded libraries, introducing Chinese script and the reading of texts in Japanese

translation (*Kundoku*). Architects, painters and ceramic artists opened Japanese eyes to the achievements of the great Chinese culture. They brought with them many luxury articles, such as silks, goldsmith's work and mirrors, which served as models for the native craftsmen.

In the fifth century the stream of immigrants was swelled by newcomers with more spiritual preoccupations. In about the year 400, two Koreans, Ajiki and Wani, introduced the elements of Confucianism, with its principles of filial piety, brotherly love, loyalty, modesty and etiquette. In the sixth century, a great Confucianist classical scholar initiated a system of professorial exchange that lasted more than half a century. About 550, the philosophical current was reinforced with the official arrival of Buddhism in the shape of statues and Sutras, sent as gifts by the king of Paikche to the court of Yamamoto. Buddhism had certainly been known before this, but only in foreign colonies and probably only by a few individuals. Official introduction of this religion was an event of the first magnitude for the development of Japanese policies. The movement towards governmental centralization was to find in Buddhism the determining elements of the supra-national creed that was wanting in the structure of the young Japanese state.

The Unification of Japan

Japan had just accomplished two stages in the process of unification comparable with that which had taken place in Korea. The first tribal groupings, which the Chinese annalists of the third century called the Wo-jen, were succeeded by the kingdom of Wo of the fifth-century texts. In 478, this kingdom was said, in a letter to the Chinese court from the lord of Yamato, to control all Japanese territory to the west of the archipelago and all the Korean territories in the south. The stages by which Japan passed from tribal organization to a centralized government are still difficult to establish since the earliest Japanese documents are of a later date; the evolution of Japanese society can be glimpsed only through Chinese annals and archaeological materials. Tomb furnishings and archaeological remains throw light on some aspects of the fourth to the sixth centuries, the period known as that of the great sepulchres (*Kofun-jidai*). Funeral statuettes (*haniwa*) show the costume as narrow-sleeved jackets and long trousers, and the hair style—double chignons for men, single ones for women. Numerous jewels testify to a skill in working precious stones and metals and, with the brocaded silks and gildings, indicate the presence of artists from the continent. Tomb furniture in ceramics include model rowing-boats and high-built vessels, and models of houses which show the development of the framework with its great ridge-purlin, its crossed rafters (*chigi*), and its beams (*katsuogi*), as well as various human figures engaged in sports and courtly games, such as falconry. Remains of villages reveal houses with semi-basements which served for storage. The appearance of iron tools, such as hoes and sickles, preludes agricultural expansion. Bones testify to the rearing of dogs and hens, and, from the fifth

century onwards, of horses and cattle as well. Warriors were buried with complete equipment: casques, cuirasses, bows and arrows, sabres and shields.

The persistence of the ancient cults in the Shinto of the eighth century enables us to attribute to the fifth-century Japanese an all-pervading pantheism. Gods (*kami*), divinities, or *genii* peopled all places and inhabited all things. The primitive religion was a cult of life in all its forms, with a ritual of glorification and gratitude to the gods, arranged in a definite hierarchy. The basic idea of the ceremonies was a total purification of all that was visible. It was a ceremonial code, rather than an ethic, that was involved. The ethic system was a matter in which custom was the main determinant, which makes it difficult to define. We know from Chinese annalists of the period that the chastity of the Japanese women and the honesty of the men were much admired. At the beginning of the fifth century, social transgressions were still expiated by acts of purification, but from 469 onwards they were punished by fines.

The social and economic structure is still difficult to make out. A fundamental social unit is to be distinguished, the *uji*, which is often compared to the clan. The *uji* is a 'stock' family, that is, one claiming descent from a common ancestor. The head of the family (*ujinokami*) presides over celebration of the cult of the tutelary divinity (*ujigami*), not always distinguished from the ancestors of the *uji*, the group providing for itself and maintaining families of artisans (*be*). As the economy developed these families themselves doubtless tended to turn into groups analogous to our corporations, which retained the name of *be* (*tomobe kakibe*). These corporations were composed of natives, possibly conquered *autochthons*, and often of émigrés, who were bearers of new techniques. Their members enjoyed a semi-liberty; their tools were their own, but what they produced was not theirs to dispose of. From the fifth century, the degree of specialization was such that *be* of all kinds are to be found, from diviners (*urabe*) and weavers (*oribe*) to interpreters (*osabe*) or buckler-makers (*tanuibe*). The cultivators of land constituted their own *be*, conditions of membership of which amounted almost to slavery. The slaves (*yatsuko*)—in the strict sense of the word, criminals or prisoners—were not numerous, and the work they were put to was for the most part domestic.

Each *uji* constituted an independent political unit. It may be that they are in fact 'The Hundred Kingdoms' of which the Chinese annals speak. From the third century these units entered into regional federations. Such was the case with the country of the Queen Himiko, in Kyūshū, which is referred to in the *Annals of the Wei* (220–65). The anxiety to ensure more adequate defence potential, and to strengthen the position of certain of the constituent units in Korea, speeded up the process of centralization. It was completed when in central Japan, in Kinki, there emerged in the middle of the fourth century the confederation of Yamato, the cradle of the Japanese empire. Resulting from successive conquests, the confederacy achieved unification of the Japanese countries. Relations between federal chiefs were transformed.

The lord of Yamato became a central authority, the regional chiefs his representatives. The old offering of game and locally manufactured products was replaced by a due measured in grain and produce (*tachikara* and *misugi*) and in labour obligations (*etachi*). The existence of private property (*ata*) among the great suggests the emergence of feudal lords. The aristocratic régime of Japan, with its tribal character, survived until 645, when the central government, confronted with more developed political structures on the continent, brought the country more into line with them.

E. The Indo-Chinese Peninsula

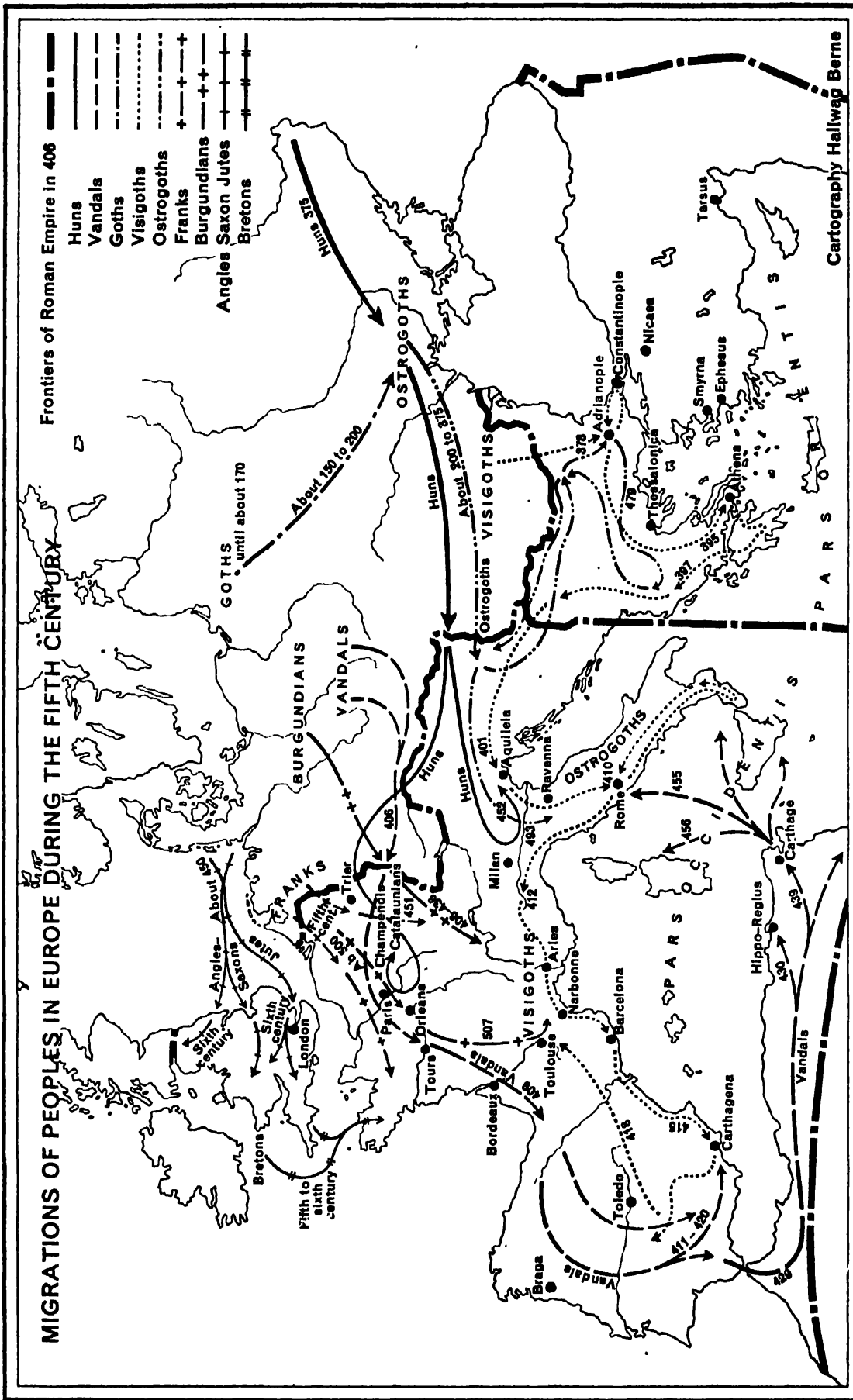
In the north of Indo-China the nine commands of the Han empire had been replaced by the province of Kuang-chou, embracing the Kuangsi and the Canton region and the province of Chiao-chou, uniting Tonking and northern Annam. This last province was to keep alive the old traditions of southern China, of Nan-yueh or Nam-viet, the root from which sprang the essence of Vietnam culture.

In southern Annam, the country of Lam-Ap (Lin-yi) was to assume a certain autonomy, and to use this to invade Chiao-chou, with or without the assistance of the neighbouring Great Kingdom of Fu-nan, which ruled the ancestral lands of Cambodia. Fu-nan, and Lam, which preceded respectively the Khmer kingdom and the Champa kingdom, belonged to the Indian world, while Kuang-chou and Chiao-chou formed the southernmost part of the Chinese world. Chiao-chou often had to defend itself against incursions into its territory from Lam-Ap. And during the respites which its victories on the border secured for it, its administration had to deal with frequent local revolts, the most serious of which was that of Li Bi, who succeeded, in 541, in having himself proclaimed emperor under the name of Ly Nam dê, and reigned for seven years. At the crossroads of the two civilizations, Chiao-chou was blessed with many advantages, both commercial and intellectual. Until the sixth century, it remained the point where Indian and Chinese navigators met and turned back; its importance increased every time the Chinese lost control of the caravan staging-points of central Asia. Since the merchants never omitted to include in their retinues for long journeys the Buddhist monks who acted as chaplains, doctors and even magicians, Chiao-chou, across which many pilgrims and missionaries had already passed, was not long in becoming an important religious centre, where echoes of the Chinese, Sanskrit and Japanese languages mingled. On the other hand, the native element continued to develop the technical and social organization conferred upon them by the Chinese occupants. The evolution of the country gave rise to the emergence of political unity, awareness of which was a contributory cause of many revolts. The leaders of these revolts were without the resources, however, to hold their own against the reinforcements which China sent each time. Moreover, they owed their lack of success in at least equal measure

to a lack of ardour in their own revolutionary spirit. The local chiefs were landowners, indigenous to the country, or settlers, sons of émigrés or refugees, and the objective of their coalition was limited to seizure of power for themselves. Yet these revolts, made in the name of independence, were helping to forge a national consciousness, which in later centuries, was to be the expression of the coherent entity of Vietnam. Meanwhile, one Chinese governor followed another in the endeavour to keep the disturbed province under control. To assure a stronger organization on the spot, the successors of the Liang, the Ch'en, created a general military government, merging Chiao-chou with Kuangtung and south-east Kuangsi. This still failed to meet the case, and revolts continued until 590, in which year the Sui succeeded in making themselves masters of the situation, at least for a time.

Chinese influence was not in fact confined to possession of Chiao-chou, but spread over the whole of Indo-China. Lam-Ap indeed was intent as much on conquering the fertile lands of the north as on having them handed over by Chinese suzerains. Commercial relations entered into with the imperial court of 336 persisted: trade in tortoise shell, perfumes, amber, cotton and the output of the gold mines continued to attract merchants. The sovereigns were anxious that these relations should be kept up, and often placed themselves under Chinese protection. In 421, Yang Mah, the Golden Prince, asked for Chinese protection. In 491, a usurper obtained recognition by the Chinese court as king of Lam Ap; Rudravarman, in 530, and Cambhuvarman, in 595, also sought recognition. The Great Kingdom of Fu-nan had developed an Indian type of organization in the reigns of the Hindu Chan-t'ao, or Chandon, (357) and of Kaundinya and his descendants (480-540), but these rulers still continued to send gifts to China. The reign of Yayavarman was one of such splendour as to excite the lively interest of the Chinese emperor, who, in 503, conferred on him the title of General of the Pacified South and King of Fu-nan.

While the barbarians were dividing up the continental lands of north Asia and entrenching themselves as intermediaries between the two great worlds of China and India, Indo-China, perhaps as an indirect result of these movements, was under direct pressure from its two great neighbours, who were responsible for shaping its kingdoms. The mode of action of the two civilizations, however, as G. Coedès has pointed out, was not the same, and Indian colonization differed radically from that of the Chinese. 'The extreme centralization of the Chinese administration, the elements of which could not function in isolation or detached from the whole, the very conception of a world centred on the Middle Kingdom which was situated under the sky, beyond the bounds of which all was barbarism and confusion, the extreme integration of the individual with the community—these were hardly conducive to expansion of the Chinese civilization independently of conquest and annexation. The Indians, on the other hand, brought with them no prior-constructed administrative machine, simply a politico-religious theory of the



MAP III

state and royalty, and an administrative technique capable of adaptation to new conditions overseas.

'By contrast with the Chinese prefects, whose task was assumed to be to transform the people by rites and justice ". . . that is, to impose Chinese civilization upon them, *en bloc*, . . ." the Indians, who did not present themselves as emissaries of a foreign nation, suzerain or protector, disseminated their culture by example rather than by compulsion.'

3. INVADERS AND INDIGENOUS CULTURES IN ROMANIA

The influence on western Europe of the Great Invasions has been variously assessed. (Map III.) For certain historians, these have appeared as catastrophes, the cause of the collapse of the classical civilization and ushering in the medieval 'dark ages'. Others have maintained that what they meant for Romania was not collapse but, on the contrary, an infusion of new life. It has been brilliantly argued by Henri Pirenne that the classical civilization survived the invasions, and was dealt its death blow only by the Arab conquest, severing, as it did, east-west Mediterranean relations. The question of the invasions is thus bound up with another: the influence that continued to be exercised over the invaded western Romania by the eastern Roman Empire.

The range of view point displayed here is in part explained by the paucity, qualitative and quantitative, of the available evidence. However, this has of late been considerably supplemented. To the historical texts, all the researcher had previously to work on, have now been added the resources of toponymy, anthropology, and linguistics and, thanks to the processes of restoration, and of chemical and spectrum analysis, now applicable to arms and objects placed in tombs, new data are also forthcoming from archaeology. Such advances make it possible to arrive now at a more balanced assessment.

A. Romans and Barbarians

Definition of terms is important here: by 'Romans' we mean indigenous populations, more or less Romanized; by 'barbarians', peoples with no political link between them, and differing alike in their ethnic origins and the varying extent of their contact hitherto with the world of Rome. That the invaders of Romania should have merged into its population is seen today to have been, in the event, fortunate. The fusion was, however, involuntary and slow. Absorption was for the barbarians, as for all minorities, something to be feared. And the Romans, or, at least, the more refined among them, felt only revulsion for their uninvited guests: Sidonius Apollinaris deplored the necessity for contact with the 'Burgundian with hair perfumed with rancid butter'.

For a time Romans and barbarians remained distinguishable. The barbarians in general retained their long hair and mode of dress; they discovered, and certain of them took advantage of, a Roman law which prohibited the

intermarriage of Romans and barbarians. Most important, the barbarians held to their respective tribal customs and laws, the Romans to their own law. An essential preliminary, when an individual appeared before a court, was a declaration of which system of law he claimed to come under (*professio juris*). This principle of the 'personality of law' certainly had its exceptions: application of it was not universal among the Ostrogoths, and among the Visigoths it is doubtful whether, in fact, it ever existed at all. Acceptance of it was, nevertheless, general, and contributed greatly to the retention of the sense that Romans and barbarians had of the differences between them.

The religious barrier. There was also, lastly, a religious barrier, separating pagan barbarian from Christian Roman, and, even more markedly, Orthodox Romans from Arian Goths and Vandals. It had so happened that the apostle of the Goths, Ulfilas, had been an Arian. And as this heresy was disappearing in eastern Romania, it was reintroduced by the Goths in western Europe, the Goths themselves practising it with moderation, the Vandals with the intolerance of a persecutor.

Yet it was on the religious level that fusion was most naturally and easily affected. The Church, as the disseminator of a truth revealed for all men, had a duty to know no distinction between barbarian and Roman. And from having been at times, in the face of the invasions, doubtful of the existence of Providence, and at others convinced that the end of the world was at hand, Christians came eventually to profess to see in all pagans the hand of God, 'since, though we be cast down, so many nations will be confronted with the Truth', to quote Orosius in 417. And to this confrontation the clergy now addressed itself. The conversion of the Franks from the end of the fifth century, of the Anglo-Saxons from the end of the sixth, and the spread of Christianity in Germany, are a measure of their success. These conversions, in particular the first of them, also meant a decisive tipping of the scales in favour of orthodoxy. Vandals and Ostrogoths were, in any case, exterminated by the Byzantine armies in the sixth century; the Visigoths abandoned Arianism in about 589.

The conversions were effected by methods carefully attuned to the mental level of the pagans concerned. The important thing was to win over the leader: he would then (Clovis is an example) undertake to ensure that all his subjects were baptized. The initial impression was often produced by a demonstration of the power of the Christian God, as when St Boniface, among the Hessians, struck down the sacred oak of Geismar with impunity. Wisely, Pope Gregory the Great recommended a smoothing of the way for the pagan in his transition to the new cult: there was, for instance, to be no suppression of pagan festivals, even of those accompanied by high feasting, but a bringing of them under the auspices of Christ. Early recruitment of a few of the élite among the converts was to be made, to form an indigenous clergy, and, soon, a nucleus of bishops. The fifth century saw a Frank, Arbogast, become bishop of Chartres; and the

Anglo-Saxons later provided a notable series of missionaries to work in Germany.

Signs of a fusion. The religious barrier proved to be the last major obstacle to fusion. For the barbarians evinced no hostility to the Romans' political system or to their culture. Barbarian war chieftains and Roman generals were soon united in a new military aristocracy, centred around the royal courts. And, instead of the Roman *praenomen*, family name and surname (*cognomen*), each individual received, according to the barbarian habit, only a single name, usually Germanic in origin. This system became general in Gaul in the last part of the sixth century. The existence, within one family, of both barbarian and Latin names makes clear the part played by mixed marriage. Roman and barbarian were soon to become indistinguishable.

B. Results of the Fusion: Social Changes

Social Structure

Their initial violence having abated, the invasions brought about no great upheaval, economic or social. Social structure was, in fact, the one respect in which invader and invaded were not dissimilar: on both sides there was a society of free men of unequal privilege, dominated by a minority of great landowners, and a mass of slaves doing the major part of the work; between these two groups prevailed conditions of semi-liberty, more or less clearly defined. Revolts, on a scale which it is difficult to estimate, among the slaves of Romania had made things easier for the invaders. But the invaders did not come as liberators in any sense of the word. Slavery was probably not diminished as a whole in western Europe; the disruption tended rather to stimulate the trade, and convoys of slaves were dispatched to the eastern Mediterranean with increasing frequency. Only in the course of centuries did the conversion of the barbarians reduce the possible recruitment of slaves—for it was not allowed to make a slave of a Christian. The manumissions of slaves contributed also to the fact that, by the tenth century, slavery had almost disappeared from western Europe.

Rural Organization

The framework of rural organization remained the same. There is indirect evidence of the continued existence of a number of smallholdings, but it is highly probable that it was the large estate that predominated. Such estates varied in size from hundreds to thousands of acres in extent. Each estate would be split into a series of 'tenures', held by peasants by hereditary concession, and a 'demesne', comprising land cultivated for the benefit of the lord, forests and fallow land. In some regions, in addition to dues (payable mainly in kind), the tenants supplied labour for the cultivation of the demesne, carts and certain tools and cloths of their own manufacture. Thus organized, these estates endeavoured to be, as far as possible, self-supporting. A certain number

of them would be divided between a Roman lord and a barbarian chief, the invader chiefs thus establishing for themselves a foothold in the landowning class. Land that had hitherto been left fallow was undoubtedly brought into service. This is not, however, to be thought of as a general and systematized movement; the process was haphazard and fluctuating, varying with the temporary demands and local habits of cultivation.

The Decline of the Towns

The main social consequence of the invasions was undoubtedly to hasten the decline of the towns. It was hard to recognize, in the sleepy townships of the end of the fourth century, huddling within their walls, with populations of only a few thousands, the cities that had earlier spread themselves so amply, and in which, in their municipal pride, the people had raised temples, triumphal arches and great amphitheatres. Rome itself never recovered from the struggle waged between Byzantines and Ostrogoths for its possession in the sixth century. Neither a declining commercial activity nor a rapidly contracting administration justified the continued existence of great cities. The ravages of the war were made good only to a very small extent; where there had been no war, time performed more slowly the same work of destruction.

These cities had played an essential rôle in the expansion of civilization in western Europe. Their decline meant a lessening of the powers of assimilation of Romanity, at the very time when it had most need of them. The closing of the schools, and the dispersion and eventual extinction of cultivated lay society, are the factors to explain why the fusion meant such a decline or such distortions in the combination of laws, religions, arts, languages and culture.

Waning of the State

Adoption by the barbarians of some of the official titles and administrative organization of the Romans should not be allowed to obscure the presence of a decline, in the minds of both governors and governed, of the conception of the state. This concept persisted comparatively strongly in Italy, which the Romans themselves continued to administer. And there was an effort on the part of the Vandals and Visigoths to carry out some of the functions which they had inherited from the Roman Empire, in trying to maintain the unity of their kingdoms. This the Franks, however, failed to do; the Merovingians, in particular, carved up and quarrelled over their territory as if it were a family property. Their subjects ceased to think it their duty to pay taxes, a notion which countries like France were not to accept again for centuries.

Increasingly, the art of government became an aptitude for deploying force. The kings already rich in productive lands and in such things as coins, arms and jewels, which they augmented from time to time by the spoils of war, used their affluence to consolidate their position and secure the loyalty of their subjects by making generous donations to church and nobility. Matters developed in roughly similar fashion in all the barbarian states. In time, however, a

victorious king would find himself hoist with his own petard; the very aristocracy which, by his largesse, he had helped to greater power, grew ambitious, broke up into warring factions, and finally quarrelled over the succession to the throne itself. Byzantine conquest terminated the Vandal and Ostrogothic monarchies before their decline had had time to reach the stage of anarchy. The Visigothic monarchy, which had become elective, was, in contrast, enabled by the support of the Church to retain peaceful sway over an undivided kingdom until it was subjected by the Arabs. Where the Franks were concerned, the process of disintegration took more complete and total course. The Merovingians reached the point where, with nothing left to distribute, they could no longer exercise even the semblance of power, while the energies of the aristocracy were exhausting themselves in the struggle for the 'Mayoralty of the Palace', the major court position. This fell eventually to the Pepins, who, by the official character which they now began to confer on the personal alliances to which they owed their good fortune, laid the foundations of the 'Feudal System'.

Roman and Barbarian Law

The Romans' most impressive achievement remains their progressive development of a systematic and logical code of law. The law of the barbarians, who now penetrated Romania, consisted simply in a body of rudimentary practices established by custom and orally transmitted. They did not attempt to interfere with the undoubted advantages of the Romans' written law; on the contrary, the Visigoth king Alaric, in 506, and the Burgundian king Gundobad, probably not much later, continued the work of Roman jurists. Such men established compilations of Roman law, more or less well ordered, and meeting, especially in the case of the *Breviary* of Alaric, with unquestionable success.

With the Roman example before them, and, even more important perhaps, enjoying a new sedentary and less strenuous life, the barbarian kings had records made of the customs of their peoples, an activity which found its first expression, about 475, in the 'Law of the Visigoths', and remained active to the end of the eighth century when Charlemagne produced the Laws of the Frisians and Saxons. However, although they were now written down, these barbarian laws nevertheless remained essentially customs, which in itself had the effect of setting them firmly apart from the Roman system. The latter was, in essence, a written law; for a provision to acquire the force of law, it must figure formally in the written corpus. Inclusion in a written record, on the other hand, added nothing to the custom law. The record was simply a convenient means of facilitating application; it had nothing to do with the creation of the law, which was the expression of a kind of popular wisdom.

What about the content of these laws? Is there no trace here of the influence of the Roman law? Most of their provisions fall within the categories of criminal and penal law; the others are concerned primarily with questions of

civil law, dealing with such things as marriage and inheritance. Within this limited field, the Gothic laws give quite marked evidence of Roman influence; the Burgundian laws evidence of slight influence; the Frankish, Lombardic, and Alemannic, of none at all. Thus, where penal law was concerned, the aim of the Roman law was primarily the punishment of the guilty party; the barbarian laws, on the other hand, aimed at preventing the relatives of a victim from wreaking private vengeance, by awarding indemnities, payable by the guilty party according to a carefully graded scale known as the *wergeld*. In Roman law, marriage was a contract under which woman retained her independent legal status, together with ownership of her dowry, albeit administered by her husband, and both husband and wife had considerable facilities for divorce. In all the barbarian laws, marriage was treated as the purchase of the wife by the husband: he handed over the price to the parents of his betrothed, and had the right to demand repayment of it in the event of the woman's infidelity to him before the marriage. Similarly, in all barbarian laws, it was extremely difficult to dissolve a marriage. Where the barbarian laws borrowed from the Roman, it was in matters of detail only; in spirit they remained profoundly different.

Nevertheless, as has been shown, Romans and barbarians eventually became indistinguishable, and the various systems of law in consequence lost their individuality. Under Reccesvinth (653-72), a law was promulgated to apply to all subjects of the Visigothic kingdom, in the *Liber judiciorum*. And everywhere else a single law, based on custom, likewise came into being, bearing in Italy and southern France the strong imprint of Roman influence, but elsewhere being much more purely Germanic.

Religious Fusion

Christianity, from the fifth century onwards, gained many new adherents, but the conversion which these had undergone was far from total: they brought to it their ignorance, coarseness and pagan habits, all of which tended to contaminate it. What took place can thus be accurately described as a fusion. Popes and bishops counselled tolerance in permitting the continued observance of pagan rituals, with the proviso only that a measure of selection be exercised, and the intentions of the rites purified. Thus, the *ambarvale*, an annual procession to seek protection from the gods for the harvest, has survived to the present day in the Catholic Church's Rogation ceremony. Many other practices persisted also, as the canons of the Councils testify, in spite of all the efforts of the clergy.

All in all, Christianity, as practised by the great majority of the faithful, was to remain for centuries a formalistic religion, centred round the details of the liturgy. The display of liturgical ceremonies was the essential source of its emotions, which were collective and, above all, passive. Attendance at the services, payment of tithe, abstention from certain of the more especially serious sins—was very much more to be expected? The more positive

tendencies found expression chiefly in the cult of saints, which was marked by somewhat crude ardour, but also by some understanding of the marvellous and a humility before the ideal. It was the voice of the people that proclaimed the saints, and attributed to them great deeds and miracles. It was the people who travelled distances to seek from the saintly relics a cure from sickness, or the remission of sins.

Priest and monk. In such a religion, the rôle of the priest is clearly defined: primarily, he is the officiator at the ceremonies of the cult, the administrator of the sacraments, a sort of magician, whose superiority lies in his knowledge of certain formulas and ritual gestures. Efforts were of course made, as can be seen from the canons of the Councils, to raise the priests above this level. But the difficulties involved in recruiting them from among masses so raw and uncultivated made too great demands unfeasible. Herein lay the long-recognized reason for the superiority of the monk over the priest. An isolation removing the monk and the hermit from contamination by a brutal, evil world; an ascetic discipline enabling them to control human passions: these were the conditions which the most religious spirits sought after, following the pattern of Egyptian monks. The emergence of monasticism in western Europe is the most remarkable aspect of this troubled period. In this connection we must especially note the part played by St Benedict of Nursia, founder of the monastery at Monte Cassino. (Pl. 16b.) In about 530, he proclaimed a rule which set forth an admirably balanced discipline of prayer combined with manual and intellectual work, attuned to the varying capacities of individual monks. Through the work of Benedict, the monks became in truth a part of the clergy, and the monasteries were prepared for the rôle they were later to assume of being refuges and repositories of learning and scholarship. But there was also the harsher regimen of the Irish St Columba; he came to the continent in about 590, and founded a series of monasteries where was observed a rule which drew strength from its very severity, consisting as it did of exhausting genuflexions, immersion in icy water, frequent acts of penance and so on. It was the monks who were principally entrusted with the work of evangelization, and it is one of the merits of Pope Gregory the Great that he should have so boldly laid this responsibility upon them.

The rôle of the papacy. Another important feature of Christianity in western Europe was the rôle assumed by the papacy. Rome had become in very truth a religious capital. In all the brilliance of her great tradition, the sophistication of her metropolitan life and her intellectual resources, she dominated the now barbarian western Romania. The great missionaries—Augustine in England, Boniface in Germany—knew that they had to work in close liaison with her. The popes, even the least powerful ones, retained a very strong sense of their pre-eminence, and of the duties it laid upon them. On several occasions, in face of exile and physical violence, they defended their independence against the Byzantine emperors. St Gregory the Great (590–604), who was a good

administrator, a liturgist, a musician and a sound theologian, played the greatest part in endowing the papacy with a prestige that exacted recognition even in the Byzantine countries. When temporal powers, which had grown strong in western Europe, threatened its independence, they always found that the papacy was able to muster sufficient strength to bring about their eventual defeat.

C. Results of the Fusion: Cultural Changes

Linguistic Fusion

Latin spoken around the year 400 was already a profoundly altered language. Certain sounds were no longer distinguished, declensions and conjugations had been simplified and the very principle of accentuation had probably changed. The whole spirit of the language had altered. There was an ever-widening gap between Latin as it was written—literary or administrative Latin, the authors of which made a point of preserving its purity—and the language as it was spoken, in all classes of society, now in full process of development.

This colloquial Latin, however, even though adulterated, remained a language greatly superior to the barbarian tongues, retaining much greater subtlety and richness. The barbarians learned it more readily, because any kind of linguistic nationalism was foreign to them. Adopting Latin, they at the same time brought into it a vocabulary, and phonetic, syntactic and even morphological tendencies. The extent to which this was so varied, of course, with the different regions. Suffice to say here that it was greatest in the case of the Franks. The reader will find more detailed treatment of the subject in Part Two, Chapter VI. The evolution of colloquial Latin was thus hastened, and by the seventh century, the populations of what had been Romania had to all intents and purposes ceased to speak Latin, pending the restoration of a pure written Latin with the Carolingian Renaissance.

Artistic Fusion

The fact that most of the monuments and works of art of the early medieval centuries have disappeared makes assessment of that period difficult. We should hesitate, therefore, before we speak, as certain historians have done, of a total artistic decline.

The arts introduced by the invaders were predominantly those of nomadic peoples—the crafts of working in textiles, leather and metal, with the object of embellishing weapons or clothing. From Iran, Mesopotamia, or possibly India, came *cloisonné* work (made by shaping wires to outline the desired patterns, soldering them on to a gold or silver base and filling the interstices with molten enamel in various colours), which had been developed in southern Russia, and introduced into western Europe by the Goths. The chief objects so ornamented were goblets, brooches and belt-clasps, and the designs most favoured were animal motifs, which became increasingly stylized—lions, single vultures,

groups of animals devouring each other, etc. It was an expressionist, decorative art and far removed from the anthropomorphic and realist Greco-Roman classicism.

A taste for interlaces as a decorative motive, which in the eighth century spread to the British Isles and Scandinavia, also developed. The so-called Irish miniature, in which geometrically stylized animals and a multitude of interlacings invade the initials and produce a splendid carpet-like effect, undoubtedly originated in the north of England in the early eighth century, passing thence to Ireland.

Architecture and building. The great majority of the architects and builders were, however, natives of Romania. Even before the onset of the invasions a decline in the workmanship in masonry and an increasing clumsiness in the treatment of the human figure had been evident, but, at the same time, there was a revival of local traditions. The advent of the barbarians precipitated these trends and made for a greater receptivity of western Europe towards oriental influences.

Assessment of these influences is not easily made. Recent work, such as that of Grabar, has shown that it is inaccurate to attribute to them the building of churches with a central plan. Similarities that exist between small country churches found in Spain, with massive walls supporting the vaults, and the partitioned churches of Armenia, may be accounted for by parallel experimentation. The use of mosaic in interior church decoration was not new, though the barbarian fondness for vivid colours popularized it. Thus the mosaics to be seen in the buildings at Ravenna, constructed between 425 and 450 by Gallia Placidia, mother of an emperor, were more or less copied on other buildings decorated under Theoderic.

Decoration. The Eastern influence is most in evidence in decoration. The pilgrimages to the Holy Land led to the introduction of certain subjects in this field. The mosaic of Santa Pudentia in Rome (of the fourth century), for example, sets Christ against a background of the buildings of Jerusalem. Economic relations, and the exchange of presents between sovereigns, were responsible for the circulation in western Europe of objects of eastern manufacture, such as ivories, jewels and textiles, which western artists then rather clumsily copied. From Egypt, for instance, came the delicate ivories of Alexandria, as well as more primitive motifs such as the figure of a man with an animal's head; Iranian textiles introduced the use of decorative fauna. Jewish ossuaries, such as were found in great numbers in Palestine and Alexandria, inspired the reliquaries of western Europe.

The classical tradition, however, did not entirely die here. In the Mediterranean regions, and even in certain monastic buildings in northern France, may be discerned an effort to construct 'in the ancient manner', in which great attention is paid to the regularity of the inscriptions. In such efforts may be seen the first tentative signs, as it were, of the Carolingian Renaissance.

The Fate of Culture

What may be called classical culture was based, in western Europe, on an education essentially practical. Grammar, the art of reasoning (dialectics) and the art of expression (rhetoric) were the foundations of a curriculum intended primarily to turn out citizens and magistrates. With the crumbling of the Roman political and administrative system, however, it forfeited both its outlets and its justification. A literary education did indeed retain its value as a mark of social distinction, 'the only hall-mark of nobility', as the Gallo-Roman, Sidonius Apollinaris, put it; but the very work of Sidonius himself—his *Panegyric* of the last western emperors, his poems and letters to his aristocratic friends—show to what a level of vapid preciousness a literature can sink, when it is cut off from its roots.

This literary education thus entered into a period of swift decline, notwithstanding the naïve admiration expressed for it by many a barbarian king. The urban schools, though there were a few local survivals, more especially in Italy, declined irrevocably, and even private teachers became rarer and of poorer calibre. The works of Gregory of Tours (in particular his *History of the Franks*), and the verses of Fortunatus, testify to the beginnings of such decadence in Gaul in the sixth century.

The disappearance of Greek. Particularly serious was the almost total disappearance, in western Roman lands of the knowledge of Greek that had hitherto marked the cultured man. A last and moving effort was made in Italy to transmit some of the treasures of Greek thought and science. In the early fifth century, Macrobius wrote a *Commentary on Cicero's 'Dream of Scipio'*, a compilation of remarks on physics, astronomy and mathematics, not of the first quality, but, up to the middle of the twelfth century, one of the great sources of Platonism in western Europe. Encouraged by Theodoric, king of the Ostrogoths, Boëthius, who doubtless owed his education to the masters of Alexandria, was responsible for treatises on arithmetic, geometry, astronomy, and music: but his condemnation to death for alleged conspiracy at the age of forty-four (in 524), though it drew from him the admirable *Philosophic Consolation*, which was imbued with the fruits of neo-Platonist meditation, prevented him from making the translations of Aristotle and Plato that he had planned. A little later, Cassiodorus, Theodoric's former chancellor, entrusted to the monks of the convent of Vivarium, which he had founded on his lands in Calabria, the translation of works of dialectics, history, geography and medicine. But the monastery barely survived its founder, who died in about 580, and its library was broken up, some sections of it finding their way to Rome and others to Monte Cassino.

Medicine. It was in medicine that this effort to ensure transmission produced the most notable results, a fact due principally to the work of Alexander of Tralles. A much-travelled thinker, who settled finally in Rome, where he died about 605, Alexander was the first really original mind in medicine since

Galen. As well as a general treatise on pathology and therapeutics, he produced studies of fevers and diseases of the eye.

Isidore of Seville. The Church offered some harbouring places at least to the antique legacy. A current of hostility to this profane culture had made itself felt in the sixth century. To a few prelates of aristocratic origins, however, who had themselves received some grounding in the literary arts, it was evident that, as Isidore, archbishop of Seville (600–36) put it, ‘grammar was to be preferred to heresy’. Isidore was the author of historical works, and, in addition, was the compiler of an encyclopaedia, the *Etymologiae*, which, although scrappy and frequently puerile, was for centuries to be of considerable influence.

Theodore and Bede. An important element in the direction given to the monastic life by St Benedict of Nursia was the place he allotted in it to the copying of manuscripts and to intellectual work generally. Unfortunately, the work of the copyists was not accomplished without errors, as a result of which whole passages are sometimes incomprehensible to us today. Furthermore the monasteries were merely isolated cells in a world which was for the most part uncultured. Many manuscripts remained unused and forgotten for centuries, as was the case, for instance, with some of the treatises of Boëthius. The greatest cultural problem of the age was the problem of transmission, that is the assembling, duplication and correction of the manuscripts of major works. Pioneers in this work were the Greek Theodore of Tarsus, who was sent to England in 669 to become archbishop of Canterbury, and his companion Benedict Biscop. Together they were responsible for the assembling of relatively large-scale libraries, which were housed in the monasteries of Wearmouth and Jarrow, in northern England. In these monasteries the most notable of all these scholars and writers was educated, lived and wrote. He was the Venerable Bede (c. 673–735), compiler of works of chronology, physics, and arithmetic and author of the famous *Historia Ecclesiastica*. With his work, we begin to see ancient culture in a different light, as a foreign culture, preserved from the decline that affected spoken Latin, and translated into the spirit of the Church. In him, as in Isidore of Seville, we can discern that hunger for knowledge, to which the uncultured western Europe was to owe its progress. The horizon is broadening.

Conclusion

The progressive merging of the peoples which was the outcome of the barbarian invasion of Roman soil can be seen primarily as a process of the integration of the newcomers into a population much more numerous than themselves. With the reins of political power in their hands, the barbarians imposed upon the country their system of law, which was private rather than public law, the development of public law being with them very rudimentary. The barbarians also introduced artistic techniques and ideas, which they had

imported from the Middle East, to varying extents in different regions, and they brought to the Latin tongue new words from their own vocabulary. They themselves, however, began to speak Latin, and to practise, at varying intervals, orthodox Christianity, and the less ignorant among them were fired with a great admiration for the image of classical culture it was still possible to hold up to them.

However disproportionate were the respective Roman and barbarian contributions, it would be in the greatest degree misleading to consider them as static. The Romania that absorbed the barbarians was itself in process of rapid evolution, and the new challenge only served to accelerate it. The barbarians were being converted to Christianity almost as fast as the new religion was penetrating the indigenous population, and this fact led to a marked drop in the level of religious life. Though it was not until later that Latin actually ceased to be spoken, the third century saw the spirit of the language already deeply transformed. The decline of the towns, which were centres of Romanization and culture, was by then perceptible; it was speeded by the invasions, which brought ignorance and administrative collapse in their train, and encouraged the re-emergence of undesirable indigenous traits, hitherto more or less held in check by Rome. The influence of the barbarians on the world of which they made themselves a part was felt principally in such indirect ways.

Geographically, the extent of the influence was uneven in a world unevenly Romanized. The unity of western Romania that Rome had only imperfectly effected underwent marked decline. With Brittany, hardly Romanized at all, and torn, literally, from Romania by Angles and Saxons at one extreme, the permanently Roman Italy at the other, and northern Gaul which bore the mark of Frankish influence half-way, what had been merely nuances now became violent contrasts. 'National' Europe was beginning to emerge. Yet, in spite of the ground gained by the Germanic world, and, conversely, the encroachments made by the Franks on Germany (sixth to ninth centuries), the old frontier of Romania remained important, and is important still to an understanding of twentieth-century Europe.

D. The Problem of Mediterranean Relations

Can the general European decline be explained, more than by the invasions, by the diminution of contact with the eastern Mediterranean, still at this time immensely its superior? If such is in fact the case, how and when did the diminution come about? By gradual stages from the fifth century onwards, or as Henri Pirenne would have it, in one sharp severance in the eighth century, as a result of the Arab conquest?

A Cultural or Economic Problem?

We have had occasion to stress, on the one hand, the persistence of oriental influence on western art, and, on the other, the linguistic parting of the ways

observable from the fifth century. Discussion of the problem, however, has treated it primarily, and in spite of the scanty documentation available, as one of economics. It is not possible to enter in detail into the views expressed: the conclusion likely to be drawn is that there was a gradual falling off of commercial relations. In particular, the colonies of Syri (i.e. Syrian, Libyan, and Jewish merchants), the principal elements in this trading, which were to be found in the fifth century in all the big towns of Italy, Spain and Gaul, gradually disappeared after that date. Why was this? Was it due to a scarcity, in western Europe, of the gold which, in the absence of commodities exportable in exchange, was necessary to pay for the Oriental products, cloths and precious clothing, perfumes, jewels, spices and papyrus? Or was it rarefaction in regions invaded and impoverished, due to a shortage of a clientele appreciative of such things? The scale of the decline should not, at all events, be exaggerated: these trading relations were not of very great intensity around the year 400.

Religious Relations

Nowhere was the unity of the Mediterranean area more clearly evident than in matters of religion. Christianity, in its entirety, with its dogma, morality, and liturgical formulas, had spread from the east throughout the Romanized west. The universal Church was a community uniting various types of humanity in acceptance of a single faith. It was, in the last analysis, to the east Mediterranean regions that western Europe was indebted for the example of the monastic life, for the Syrian liturgy (modified to form the Gallican liturgy) and for the cult of the saints and its embellishment with pious legends.

It was impossible, however, that the many facets of religion, or the Church itself, should be identical in the rural and less civilized Europe as in the eastern Romania. The development of western monasticism is a case in point. The rules and example of the eastern monks continued to be commented upon and admired; but imitation of their open air life was, for reasons of climate, out of the question; and the need for evangelization and teaching in a still barbarian environment led to the giving of a place in the monastic life to the intellectual work of the Benedictines. Western monasticism was thenceforth to follow a path of its own.

Between the customs of the western and eastern churches differences now appeared in increasing number, minor in character at first, but increasing with time. For instance, eastern priests, provided they were married before they became sub-deacons, might remain so; whereas St Leo (pope from 440 to 461) laid it down that they must renounce all conjugal relationships.

Christendom had its paradox: the parts of it most completely Christianized, having the soundest framework and organization, and being most fertile in the production of theologians, were Asia Minor, Syria and Egypt. Eastern superiority stands out in this respect as in all others. The residence of the head of the Church, on the other hand, was in Rome, a capital city in decay, but the

burial place of St Peter and St Paul. Unremittingly, the popes affirmed their higher authority in matters of dogma and discipline alike, none more brilliantly or effectively than St Gregory the Great. The difficulties were reflected in a series of conflicts, between 404 and 415, as a result of the unjust condemnation of St John Chrysostom, patriarch of Constantinople, whose cause the pope supported against the basileus, and again between 484 and 518, and again from 640 onwards, as a result of the concessions made by the emperors to the Monophysites. Even in the intervals between these disturbances, calm did not always prevail; the ecumenical title, claimed by the patriarch from the sixth century onwards, was a permanent source of dispute.

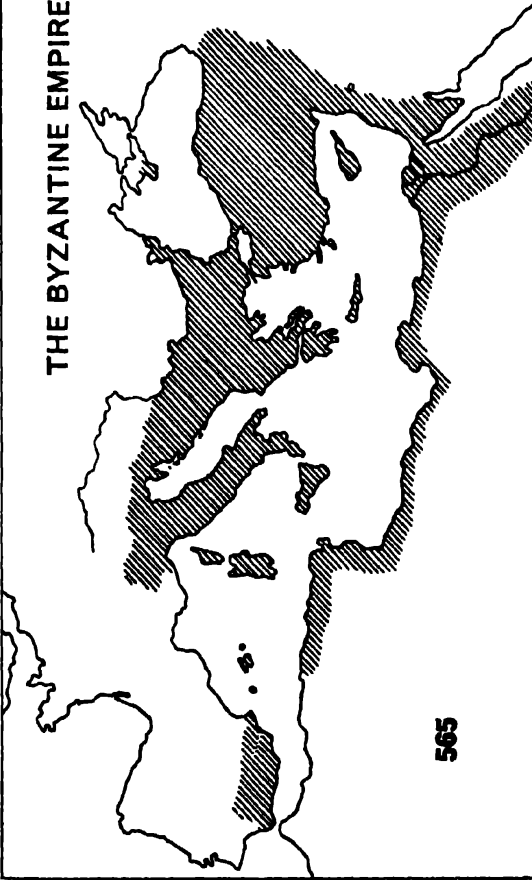
At the heart, then, of Christian unity, deep and sturdy though it still remained, first signs of dissension had made their appearance. Divergence now became increasingly pronounced: it was to culminate in the rupture of the eleventh century, which was a further weakening of the Mediterranean unity. (Map IV.)

Effects of the Justinian Reconquest

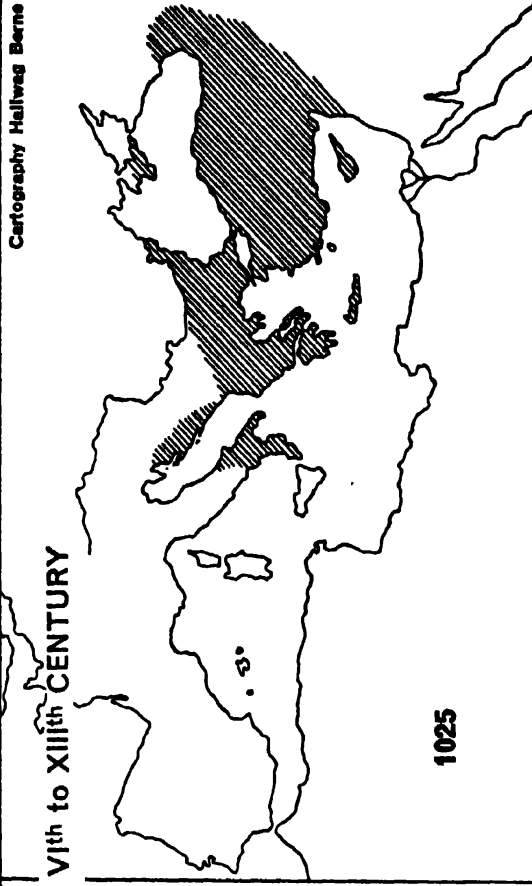
Invaded in its western part, torn by centrifugal forces in its eastern part, and more and more divided by the loosening of the ties between east and west, the Roman Empire was in process of disintegration. One man, however, wanted to reverse the course of affairs, and to make the unity of the Empire a reality once more. The Emperor Justinian, himself of Macedonian peasant stock, dazzled by the former grandeur of Rome, set unweariedly about its restoration. Having in 532 concluded with the Sassanid king a permanent peace, he launched his armies to the west, and reconquered Vandal Africa in 533. He then proceeded, not without difficulty, to retake Ostrogoth Italy (534-54), and, finally, a part of south-eastern Visigoth Spain (552-5). He re-established in these territories the traditional Roman administration; he dispatched administrators and ecclesiastics to all the reconquered territories, to Italy in particular. Great work projects were embarked on, as at Ravenna, and in north Africa where he founded Justinianopolis and reconstructed Leptis Magna and Timgad, in an attempt to restore their prosperity.

Opinions are still divided, and conclusions are difficult to arrive at, as to the effect of this reconquest on the aforementioned process of diverging developments. The question still remains: Did it reverse or precipitate the process? The impression that seems generally to emerge is that, militarily and politically, Justinian's work proved precarious and fragile. Byzantine Africa, as had happened to the Vandal kingdom before it, was gradually eaten into by the nomadic Moors; resistance to the Arab conquest was in fact to come from them rather than from the Byzantine garrisons. It took the Visigoths about half a century to reconquer Byzantine Spain, and, from 568, Italy was the scene of a new invasion. The progress of the Lombards in Italy led, as elsewhere in the Empire, to the abandonment of the traditional administrative framework and the regrouping of territories under the military authority. What

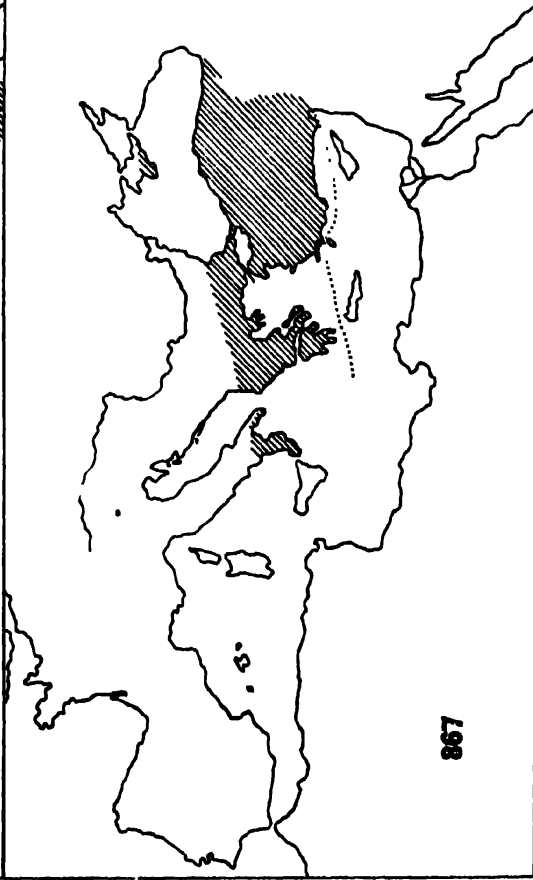
THE BYZANTINE EMPIRE, VIth to XIIIth CENTURY



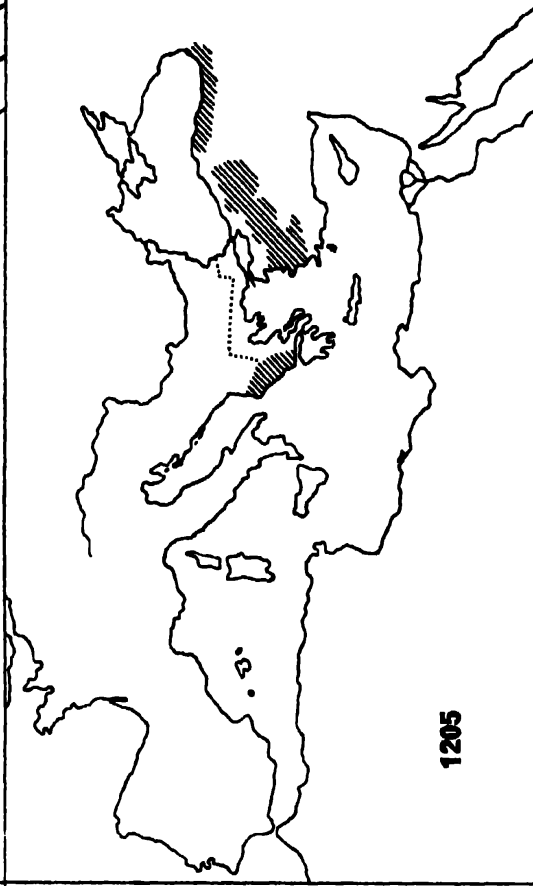
565



1025



867



1205

the Byzantine offensive had done was to deal the death-blow to the idea of a theoretical imperial unity that had always occupied the minds of most of the barbarian rulers.

Economic effects. Economically, Justinian's action does not seem to have been particularly effective, except in the case of Africa, which recommenced the dispatch of goods to Constantinople. Italy emerged from the war impoverished. The Roman aqueducts, which had been cut during the siege of Rome by the Goths in 537, were not repaired; and a great number of Italian senators who had fled to the Byzantine countries stayed there. The impoverishment of western Europe proved finally to be the principal obstacle to its exchanges with the Orient.

Effects on the Church. Lastly, Justinian's religious authoritarianism raised serious problems within the Church. Not that the emperor failed to acknowledge pontifical authority: on the contrary, the care he took to obtain papal assent to imperial decisions, even if this had to be elicited by force, constituted indirect homage to it. But, in 537 Justinian deposed Pope Silverius, and later he had Pope Vigilius carried off from Rome and confined in Constantinople, until such time as he should see fit to approve an edict condemning, under the heading of the 'Three Chapters', three works expressing a Christological doctrine markedly opposed to that of the Monophysites. The unfortunate Vigilius was driven to seek sanctuary in a church, from a pillar of which soldiers attempted to drag him; the emotional strain killed him on his way back to Rome. Infliction of such humiliations could not but contribute to a serious weakening of the imperial-papal association.

And the positive side? By binding Italy more closely to Constantinople, thus enabling Byzantine influences, ecclesiastical and artistic, to take root in Ravenna, Rome, Venice, Naples, southern Italy and Sicily, Justinian was responsible for one of the important features of the destiny of Italy in the Middle Ages. The Byzantine reconquest made Italy, as the Arab conquest made Spain, a privileged country in the matter of future east-west exchange. Justinian failed to recreate Roman unity, but he created Byzantine Italy.

CHAPTER II

THE IMPACT OF CHINA AND INDIA THE ARAB PROGRESS

I. THE CHINESE WORLD AND THE BARBARIANS (SEVENTH TO NINTH CENTURIES)

THE period of the great invasions had entailed, in both east and west, movements of peoples which modified the political geography of both Europe and Asia and led to the birth of new cultures.

In Asia, between Iran and China, the communities continually shifted, invasion followed invasion and one wave of barbarians succeeded another, hegemony continually passing from one set of conquerors to the next. While in Europe communities tended to crystallize.

Beginning in the seventh century, the problem of the barbarians governed Chinese policy, a situation that was to last until the nineteenth century. In later times it was ordered nations like England, France, Japan, and others, European and American, that China saw ranged against her as barbarians. In both cases, the background to the conflict is a wide economic, social and political disparity between the two antagonists.

The alternation of attacks on China from five different barbarian quarters, gave way to a steadier and broader-fronted harrying. The barbarians gradually came to form more civilized units, their economic organization at times rivalling the great civilizations themselves. In economic structures, honours may be said to have rested at different times with one or another form of culture, but where the level of production in craft technology or art is concerned they are even. The intermingling of peoples produced by wars and migrations favoured technological growth. Political and social structure alone stood in the way of a levelling-up of the economies, while trade and the interchange of ideas were already promoting such levelling psychologically, scientifically, and technically. This was to be the extent of the achievement of the period from the sixth century to the ninth.

Countries capable of taking on a new form of social structure became new states of stability and strength. Such was the case with Korea, Japan, and later, Annam. Those which partially adapted themselves were able to make their empires last a century or two, as, for example, the Po-hai in Manchuria, the Kitans in the Liao or in the Qaraqitay empires, the Manchu Juchen in the Chin empire, the Tu-fan in Tibet, and the Uyghurs in Turkestan. Those that failed to come to terms in any way with the Chinese or Iranian structure

disintegrated with their potential unrealized, as happened with the Turkoman T'u-chueh, or the Qarluq, and the Kirghiz.

From the seventh century to the ninth, the dominant factor in eastern Asia was the conflict of the two great communities, Chinese and Turk. Up to 750 it was the antagonism between the T'u-chueh and the Sui and the first emperors of the T'ang. Then came a calmer period of coexistence between the last T'ang emperors and the Uyghurs, who were succeeded by the Khirzig and the Qarluq. To these tensions was added the Tibetan problem, which was expressed up to 750 in incessant aggression in the Tarim basin, thus blocking the Silk Roads for a quarter of a century.

East of this battlefield, Japan was developing, taking full advantage of the experienced Chinese among them in the Nara period, and at the end of the eighth century, with the Heian epoch setting its culture on an original path of its own.

Korea, unified by Silla, pursued its national destinies in the shadow of its powerful neighbour, while Annam, bordering on the independent kingdom of Nan-chao, worked towards liberation from the Chinese, which it achieved in 976.

A. The Unification of China

The Emperor Wen-ti

After three centuries of division and occupation, a minister of the northern Chou, Yang Chien, had seized power and founded the dynasty of the Sui (581-618).

Assuming the name of Wen-ti this new emperor indeed accomplished great things. As, before the Christian era, the short and vigorous Tsin dynasty laid the foundation for that of the Han, Wen-ti's reign, equally short, prepared the way for the great empire of the T'ang. In a climate of peace, which was favourable to economic recovery, redistribution of land was carried out on the earlier egalitarian principles and resulted in a full agricultural yield. A relaxation of *corvée* requirements furthered the general recovery, and the introduction of a uniform coinage produced more markets at the empire level. Wen-ti's successes were due in part to experience inherited from his predecessors. In many of their achievements, the Sui thus figure as continuers of the policies of the northern Chou and even of the western Wei, rather than as innovators. The economic programme of the western Wei, started by Su Ch'o in 535, was taken up again by Kao Chiung, minister to the Sui. A taste for the classics inspired the Confucianist policies of the new dynasty which wanted to find a justificatory ideology within a purely Chinese system of thought. The emperor, Wen-ti, therefore set up a special commission to take another look at the classics and bring life at court into line with them. He opened new Confucianist schools and re-established the National University (Kuo tzu hsueh) which was reserved for sons of the nobility. In 587, he required each province to send three young educated men to the capital, there to take exami-

nations for entry into the public administration. In so far as Confucianism was compatible with the authoritarian methods of the old jurists, the ministers of Wen-ti did not fail to apply it. For instance, they were inspired by the Classic of Filial Piety (Hsiao-ching) when they demanded equity in the distribution of the fiscal burden and moderation in the administration of justice. In a few years, even before he had conquered the south, Wen-ti had carried through the greater part of his programme of applying Confucianist principles.

Strong in the support of the *literati*, the emperor, pursuing a policy of eclecticism, contrived also to enlist the support of both Taoists and Buddhists, who had scarcely recovered from the persecution of 574-8. For the Taoists he founded the Hsuan tu kuan, a great temple that became the controlling organ in the capital of ten reconstructed monasteries and two thousand registered adherents, as well as the centre of research in the traditional Taoist fields of astrology, geomancy and calendar circulation. Devotees of the popular cults were satisfied with the rôle assigned to the Taoists in the elaboration of the calendar and with the official assistance given in the erection of commemorative monuments. As for the Buddhists, Wen-ti, despite his desire to be fair, had, gradually, to give them preference. Reared in the Buddhist spirit and married to a wife who was herself a pious Buddhist, the emperor nevertheless at first gave full recognition to the justice of anti-Buddhist recriminations. He was, however, anxious to exercise some control over the Buddhist priesthood, and therefore devoted more attention to them. In 583, there went up in the capital, opposite the Taoist temple, but twice as high, the T'a hsing shan szu, and every large town of the provinces followed suit and erected a temple of the same name. The multiplication of these buildings derived from the memory of the ancient Indian sovereign, Āśoka. Like that ruler, Wen-ti aspired to be a saint-king, and this attitude, so different from that of his predecessors, who, in the north, had identified themselves with Buddha, did not fail to win over those it was desired to win over—those in the south, for instance, who still lived in the kind of piety associated with the Wu-ti of the Liang. In 594, he even proclaimed himself a simple disciple of the Buddha. In pursuance of his unifying policy, he combated sectarianism and encouraged syncretist schools, such as the sect of the T'ien-t'ai, which had its roots in the south. Gradually he came to prefer the harmony of a Buddhist society to the homogeneity of a Confucianist one. In 601, towards the end of his reign, the preference hardened into a definite change of attitude; he closed the Confucianist schools and launched a Buddhist proselytization campaign throughout the country. Between 601 and 604, nearly one hundred reliquaries were sent to the capital and to big provincial towns as demonstration of the official devotion to Buddhism. The change of policy had considerable repercussions throughout eastern Asia. Korea asked for reliquaries to be sent to her, and Japan seized on the idea as a means of consolidating her new empire. This change in religious policy unfortunately gave rise to a great deal of discontent and lent fuel to the flame of ill-will engendered by the sovereign's economic policy.

Yet, materially, his had been a considerable achievement. The agrarian regulations had been applied successfully, thanks to the system of five-family guarantee groups, and to the association of interests. The heads of these groups were held responsible for carrying out instructions, and exercised a kind of surveillance over each other, encouraged by a cunning system of denunciation. Inspectors reinforced local administration and instituted registers of births, marriages, and deaths, and tax rolls. These measures were further reinforced by stern injunctions to practise economy and austerity at court. Though the means were at times unpleasant, as the annalists make very plain, the results of this policy were satisfactory; the country had become rich and well-populated.

The principle governing agrarian policies was foresight. If the reserve granaries were to be kept constantly supplied, a good transport system was essential, and as a result the waterways and canals were greatly improved. To facilitate the distribution of the grain, the number of provincial granaries was increased and brought up to one per commune. In this way, the damage done by flood or drought, the two great scourges of China, could be minimized. Among other measures of improvement, Wen-ti in 588 forbade local officials to lend money from the public funds at interest; on the other hand, he left them free to traffic in commodities and livestock, inaugurating a kind of state capitalism in doing so.

At the end of his reign, Wen-ti could claim to have given China social, administrative and monetary unity, together with an economic prosperity the like of which the country had not known for five centuries. This great personality remained always a little surprised by his own rapid ascent. He was an anxious sovereign, however, always seeking to justify himself by irreproachable conduct, dedicated to justice and probity, economy and authority. Perhaps he was too enlightened; at any rate, he was the victim of a conspiracy which cost him his life and placed on the throne his son, Yang Kuan. The new emperor, who took the name of Yang-ti, carried on the work of Wen-ti throughout his twelve-year reign. Where the father, however, had applied an enlightened authoritarianism, the son carried this too far, and, using the wealth which had accumulated over a quarter of a century, launched into a constructional programme that ruined the country and led to the fall of the dynasty.

The Policy of Splendour

The first act of Yang-ti was to leave Chang-an and establish his capital at Lo-yang, a move justified in so far as it meant greater proximity to agricultural and trade centres, but scarcely so in view of the expenditure necessitated by the construction of new palaces. Loving luxury and opulence, the emperor had sent to his new capital rare plants and flowers, strange birds and extraordinary beasts, from every prefecture. Fortunately, his love of splendour also expressed itself in works of more practical utility. His great work was the construction of the great canal, to improve 'water transportation' (Yu-ho). Operations

were directed by the famous engineer, Yu-wen K'ai (555-612), who was responsible for all the major constructions. The new waterway went from the capital to Yang-chou, at a point some 900 miles south of the mouth of the Blue River. Linking the overpopulated north with the over-exploited south, the great canal finally bound the two Chinas together. Only later dynasties felt the advantages, however, for the cost was immense. The effort required for this undertaking was superhuman, and was more than was expended in the building of the capital (605) and the modernization of the Great Wall (607) together. Half of the millions of workers mobilized died at their work. Contemporaries tend to record only the picture of the unforgettable opening. The splendid autocrat had a vessel with four decks, some 15 yards tall, the first two of which contained 120 service cabins. Richly decorated vessels carrying his suite followed in a convoy 60 miles long. From the bank, troops and officials admired the fleet, which was towed by 80,000 men. Along the route were forty richly appointed hotels to accommodate the king in the luxury to which he was accustomed in his capital. Returning to his palace, Yang-ti still had his immense gardens in which to desport himself, not to mention their sixteen pavilions, each holding twenty beautiful women. Life was one round of pleasure with its nocturnal rides and promenades by the moonlit lake, in a romantic atmosphere, echoing to the finest poetry of the court. The provocation offered by this gracious living to the people who knew its tragic price produced a climate of revolt, and external events were soon to bring matters to a head.

Unsuccessful wars brought with them their train of ills. Between the discontent of the rich, who, at all costs, had to provide the horses, and that of the poor, labouring under the burden of the *corvée*, ground down by toil, and decimated by battle, the dynasty had little chance of survival. And to the excesses of the policy of splendour were added deterioration in relations with the barbarians.

The New Barbarian World

While the Sui were reuniting China, the empire of the T'u-chueh, former arbiters of Sino-barbarian disputes, had split into two halves, each in arms against the other.

The division underlined the economic and political dissimilarities between the two regions. The one, the western, had turned towards Iranian culture; the other, the eastern, felt the pull of China. The frontier now dividing them was essentially that dividing the Middle East from the Far East. The western Turks occupied sparsely populated territories in central Asia, in which widely dispersed groups lived largely by agriculture and trade. This assemblage of city kingdoms was not the kind of integrated entity likely to put up a concerted or sustained resistance. The eastern Turks, for their part, held the old pastoral areas and could make little out of a territory they alone occupied. To these differences of an economic order were added others attendant on the respective political positions of the two regions. The one had strong backing in Byzantium

in its dealings with the masters of Iran; the other, by contrast, was without any such weighty alliance to aid it against the Chinese. The type of life of the Turk powers was itself to be undermined by the spread of agriculture and of the urban life on the edges of the old Iranian and Chinese civilizations. For a long time the Turks had been content, in their relations with the civilized communities, to collect tributes, such as the 100,000 pieces of silk which they received from the Chinese court, or to raise transport levies, such as those which they imposed on the Sogdian merchants.

On their own territory, the Turks continued to occupy themselves with hunting and stock-rearing, living on meat and dairy produce, sleeping in their felt tents, and moving on horseback or in yurts, or chariots. Each of the territories was divided into regions. At the head of a region was a prince, or *tegin*, in a line of fraternal succession, which went from the elder brother to the younger, and from the younger brother to the eldest son of the elder. Each prince governed tribes of varying size. The chiefs (*bek* or *buyruq*) met in assembly to settle problems affecting the general interest. Over against the ruling tribe there stood, therefore, various other tribes of free men (*budun*). These others assumed the rôle of warriors. Helmeted, clad in armour, they rode armed with bows, lances, short sabres, or hatchets, and brandishing insignia surmounted by the golden wolf's head. The non-productivity of these fighting cadres was compensated for by the employment of prisoners of war, who were treated as slaves and set to work as shepherds or peasants.

Their religious life was simple. In ceremonies which included the sacrifice of sheep or horses, they worshipped all the spirits who represented the forces of nature, and more particularly, the blue sky (*kök tengri*). Thus primitive pantheism did not oppose other religions; a spirit of generous tolerance frequently led the princes to patronize Buddhist temples and monasteries. One of the sovereigns, T'a-po (552-81), was indeed converted to Buddhism by the monk Huy-lin; he ordered translation into Turkish of the Nirvana Sūtra, and offered shelter to monks who had been driven from China by the edict of 574. Barbarian justice remained summary. Rebellion and homicide were punishable by death. Blows or wounds were required to be expiated by compensation—a lost eye, for instance, by a wife or daughter of the aggressor. For theft, a penalty was exacted, the thief having to pay ten times the value of what he had stolen.

At the end of the sixth century, the T'u-chueh were scarcely distinguishable from their neighbours. With the seventh, however, civilizing effects began to make themselves felt. In 608, the Kaghan Ch'ih-min had a town built in the Chinese manner. Soon afterwards, the Kaghan Hsie-li (620-30) went to great pains to introduce the Chinese principles of centralized administration. Agriculture took an increasingly important place in the economy. The Kaghan Mo-ch'o, in 698, went so far as to ask China for 4,000 tons of seed and 3,000 sets of agricultural implements. The way of life was gradually changing. The

Turks obtained money and tea from China in exchange for their horses. The refinements of the empire charmed them; exchange and tributes brought them all they needed to affect the lordly life. Richly dressed, sumptuously adorned with jewels, dicing and playing football, loving dance, song and music, the Turks had all the requirements for a city life with its agriculture, trade, crafts, and leisure for the rich. Their camps no longer satisfied them; they built cities modelled on the Sogdian and Chinese residences, as, for example, the western capital of Balasaghun, and Sarygh near the Issig kul.

This cultural change among the Turks was mostly apparent in the border areas, but it was important in that it affected the ruling aristocracy and served further to distinguish it from the lower classes, and even to set the two classes some distance apart from each other. Further to the interior of the territory, the northern barbarians knew nothing of this organization and lived still in tribal communities, such as the Kirghiz of the Altai, or the Quriqan of Lake Baikal. The empire of the T'u-chueh had thus enlarged the narrow strip of Hunnish federates of former days and the frontier of civilization was carried to the borders of the forests of Siberia. Thus China was to build its greatness, not from rude, wild tribes, but from refined barbarians, who could be governed by prestige and cultural influence as much as by force and political strategy.

The Policy of Grandeur

Wen-ti had had the good sense to foster the division between the two Turkish khans and to take full advantage of internal quarrels. Power, frequently contested, passed in fact continually from one khan to the other. It was easy for the Chinese to keep the division in being by judicious switching of their support. For a century, apart from one or two revolts, the eastern Turks remained quiescent vassals of the Chinese court. Manifestations of expansionist energy on the part of the western Turks caused the Sui rather more trouble, but here again Chinese policy succeeded in bringing about decisive dissensions. New political relations were established. It was no longer a case of brushes with barbarians rising suddenly in the plain, but of conflict carefully avoided by a constant vigilance within the enemy court. This political infiltration resulted in many contacts between Chinese and barbarians. The interchange of Turkish and Chinese ideas was encouraged by the permanent communication lines secured by chains of relay stations and garrisons.

The Emperor Yang, in his relations with the Turks, continued the policy of his father, but he dreamed of consolidating the economy of his country by a permanent access to the great commercial highways, which were threatened by other peoples. This policy of open communications engaged him on three fronts: Vietnamese Chiao-chih which commanded the Spice Road across the southern seas; Tibetan Kuku-nor which controlled the terminus of the Silk Road; and the Korean peninsula, traditional point of embarkation for Japan.

In the south, after the revolt of Ly Xuan in 589, the Sui reorganized Chiao-chih and transferred the capital to Tong-binh, the present-day Hanoi, but the

country continued to be restless, permanently immobilizing the necessary pacification troops. In 603, the Chinese had to check the rising of Ly Phât Tu. The victor, Liu Fang, took the opportunity to drive further south and sack the capital of Champa, Indrapura (605), thus securing for China a passage to the heart of Annam. In the west, by the Kuku-nor, the Sien-pi horde of the T'u-yu-hwen, who were great horse-breeders, continually threatened the gates of Kansu. Profiting by his alliance with the Turks, Yang crushed this tribe in 608. As a result the first stage on the Silk Road, Hami, made its submission in 608, and the king of Turfan paid his tribute to the court in 609. Both Silk and Spice Roads were thus open.

The third road to be kept open, that in Korea, was important also as the means of access to Japan, the link in the chain that could connect Japanese and Turks and so extend eastwards the barbarian encirclement of China. Right of way was guaranteed by ties of vassalage cultivated by the king of Korea. But at the beginning of the seventh century the kingdom of Kokurye, strong in alliance with the Turks, refused its tribute to the Sui court. This affront, and the fear of seeing Korea slip out of Chinese control, induced Yang to undertake himself the subjugation of his recalcitrant vassal. Several times he launched combined sea and land attacks, but unforeseeable circumstances and inadequate preparation prevented supplies from meeting the requirements of his troops.

The End of the Sui

From the first Korean campaign in 612, discontent gripped the country. The second campaign (613) was stopped by a dozen risings; to quell them Yang-ti was obliged to forfeit the victory which seemed almost within his grasp. He launched yet a third campaign in 614, mobilizing, for lack of horses, all the asses of the empire. Receiving a promise of allegiance, he retired, but contemplated a fourth attack. Only the ruin of the country and the lowered morale of his troops halted the new preparations. Authority began to slip from him; there were risings all over the country. In 613, there were thirteen centres of revolt; in 614, eight; in 615, eleven; in 616, again eleven; and in 617, forty-nine. By this time, ten or so rebel chiefs held the empire between them. Emperor Yang took refuge at Yang-chou, in the less disturbed south of China. Having fled from responsibilities, he was free to brood over the insult the Turks had proffered to him in besieging him for a month on his return from Korea. Defeated, his prestige gone, betrayed by his former friends, this Chinese counterpart of Xerxes died in 618, assassinated by a general of his own guard.

The whole edifice raised by the foreign policy of the Sui disappeared with the emperor. China, once more, was at the mercy of the barbarians. Many of her best men had died, and vast sums had been spent on all these campaigns. Coming, as they did, on top of the great construction programme, they had finally undermined the country's economy. The frequent moves the emperor

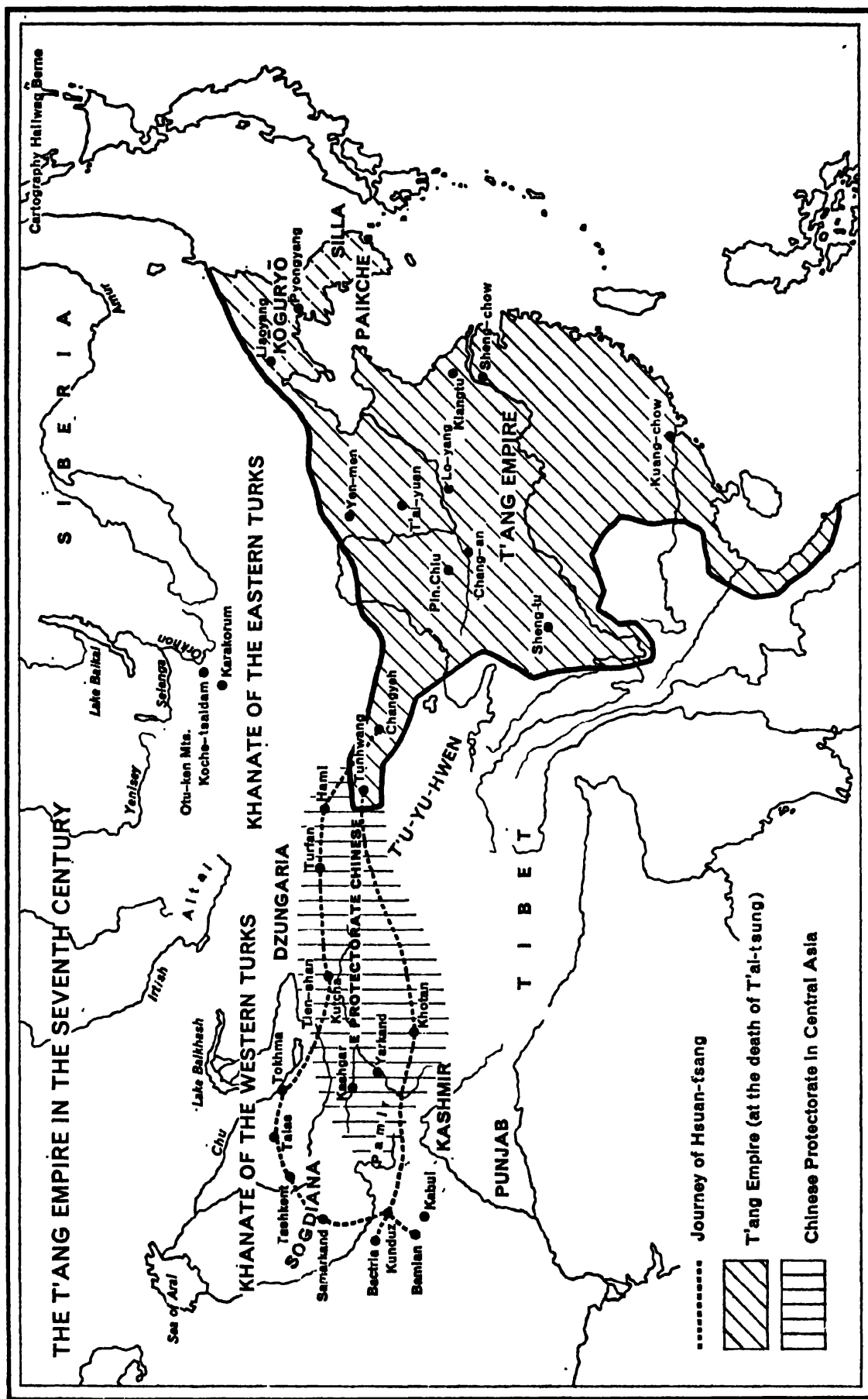
had indulged in, accompanied by his whole retinue and his chancellery, had detracted from the efficiency of his administration and made too public a display of the cost of such moves and the work they entailed. The dynasty collapsed thirty years after its foundation, yet its record was not negligible. Roads, waterways, buildings had cost dear, but they were later to contribute to the country's prosperity. The conduct of Yang-ti has had a severe verdict passed on it by history, but perhaps this is because the historical sources are texts of the next dynasty, which felt obliged to justify its accession. Certainly Yang was capable of both weakness and tyranny, in which he was in line with illustrious precedent. The value of his work is more fairly assessed in the light of the fact that he reigned for twelve years over a country which had scarcely emerged from three centuries of fragmentation.

Li Yuan, one of the regional chiefs faced with the task of putting down disturbances, had turned his feudal of Shansi into a fortress. An experienced general, he had, with the aid of his son Li Shih-min, pacified his territory on behalf of the emperor of the Sui. Urged on by his son, and aspiring to the foundation of a dynasty, he proceeded to revolt. His social affiliations were very valuable to him; he was, among other things, a nephew of the empress Tu Ku, wife of the emperor Wen. His family name, Li, indicated that he was a descendant of Lao-Tu, founder of Taoism. As suggested by his title of 'duke of T'ang' he was also related to the great officials of legendary dynasties. Everything marked him out as predestined to take the throne, or so ran the prediction of the soothsayers, cunning agents of the revolt. In 617, he declared open rebellion and returned to Chang-an. In 618, immediately after the death of Yang and the abdication of a puppet emperor, Li Yuan assumed the throne. A series of internal campaigns made him, in 623, master of a pacified empire. Four years later, he was eclipsed by his son Li Shih-min, who succeeded him, and went down in history as the illustrious T'ai-tsung of the T'ang.

The tasks confronting the T'ang founders were the reunification of the country and the consolidation of national unity. In order to ensure a solid basis for national unity, egalitarian agrarian legislation was guaranteed by a powerful administration in which precedence went to the military. Recruitment through competitive examination resulted in a wider social selection among government officials. A policy of expansion helped relations abroad and stimulated an international trade that was the means to the extension of T'ang influence outwards, as well as to the entry of foreign influences into the country. Lastly, the position of China in Asia required of her a policy of tolerance in religious matters, which proved especially auspicious for Buddhism.

Historians customarily treat the three centuries of T'ang rule as the summit of Chinese power and the zenith of its cultural influence. In fact, the situation varied from century to century, and the uninterrupted T'ang supremacy was due entirely to the firm basis upon which it was established by its founder, the emperor T'ai-tsung. (Map V.)

It was to the credit of this emperor that he brought to a successful conclusion



MAP V

those military campaigns in which the emperor Yang had failed, and that he made better use of the peasant resources that emperor had wasted. The soundness of his work derived from its being a continuation of the main lines of the policies of the Sui. By the same economic and military measure, he made, as it were, a double turn of the rope binding China to its new destiny.

Having subdued all the territory of his empire, T'ai-tsung instituted a new redistribution of land, observing the earlier egalitarian laws. Every peasant received in theory 100 *mou* of land (about 13·5 acres)—80 for his lifetime only (*kou fen*), 20 as property he might bequeath (*yung ya*). But, however good his intentions, these allocations, as before, proved practicable only where land was plentiful. The government endeavoured to encourage landowners and peasants to bring as much land as possible under cultivation and to prevent, as far as they could, the growth of large estates. The independent peasant had to be protected and a minimum return assured to the cultivator to enable him to pay his dues and fulfil his military obligations. The so-called egalitarian régime, however, proved to be a chimera, the regulations failing through abuse to promote the equity intended. Nobles, officials and priests enjoyed very considerable privileges and numerous exemptions; the growth of large estates was thus furthered by the very terms of the law which was supposed to control them. The state official, for instance, had a right to a property (*kou fen*) of from 15 to 815 acres, i.e. between twice and sixty times the standard lawful holding. He could, moreover, also receive 12 to 540 acres of public land, increasing his holding by two-thirds. Property rented to farmers or worked by agricultural labourers could be added to by the acquisition of new land. And in addition to these privileges, those enjoying them were also exempted from paying taxes and from *corvée* obligations. Progressive extension of these abuses was to bring the taxable section of the population down to 14·5 per cent of the whole, estimated in 754 at about 53 million.

Parallel with this consolidation in the agrarian field, and again relying on the peasant, T'ai-tsung reinforced the military strength of the realm. The twelve regiments of the imperial guard were increased to sixteen, bringing the number of men up to about 120,000. A rota system of service, considered as a *corvée*, enforced periods of service of one to two months, according to the distance at which the conscript lived from the capital where he was to serve. The professional army, as organized in the sixth century by the western Wei, had gradually, from the Sui period, been replaced by a militia. The number of provincial militia units was fixed at 630, representing a force of about 630,000 men. In addition to guard and militia, there were frontier divisions responsible for border defence and comprising almost 500,000 conscripts, exiles and deportees. Alongside the imperial troops were others under the control of the lords. These were private troops (*pu chu*), who paid no tax, but performed certain of the tasks of slaves and remained bound to their masters, although at liberty to change from one master to another. With all these troops to draw

upon, the emperor could, without jeopardizing internal security, throw into battle more than a million men.

Administrative Reforms

To obtain an effective administrative system, T'ai-tsung sought to strengthen the central authority. By the many institutional reforms he effected, in the recruitment of officials as in organization of the provincial administration, T'ai-tsung, in the twenty-three years of his reign, gave China an administrative structure that made it a thoroughly integrated nation, capable not only of withstanding many aggressive attacks, but also of exercising a power in Asia commensurate with its ambitions. His successors, Kao-tsung (650-83), the Empress Wu Tsê-t'ien (684-710), and Hsuan-tsung (713-56), all improved on his work and to some degree modified it, but the China of the seventh, eighth and ninth centuries was his work and owed its position in the Asia of that time to the impulse he had given to expansion.

The Expansionist Policy of the T'ang

The policy of grandeur instituted by the Emperor Yang of the Sui had culminated in tragedy and it took all the military ability of T'ai-tsung to redress the situation. With the Turks, T'ai-tsung continued the practice of his predecessor, supporting first one tribe, then another. In 630, he disposed of the eastern Turks for a half-century. The khanate of the western Turks, under pressure from the Qarluq, split into two, with the Nu-shih-pi on the one hand and the Tu-lu on the other, although there was a brief attempt at reunification in 642. By the end of his reign, then, T'ai-tsung could congratulate himself that he had annihilated the T'u-chueh. But the success did not last. In 657, Kao-tsung had to make use of the Uyghurs to combat the friends of a khan who had unified the western khanate, and to place Chinese agents once more at the head of the two groups. Scarcely was the problem of the western khanate settled when the eastern branch re-emerged under the Kaghan Qutlugh. The T'u-chueh khanates were veritable hydras, recurrently producing new heads. New barbarian armies arrived to harry the frontier provinces of Shansi and Shensi. The Empress Wu Tsê-t'ien had to settle this problem for the third time. As it presented itself in her reign, however, it was not entirely external. As a usurping monarch, the empress Wu had against her the supporters of the legitimate line, who did not scruple to ally themselves to the T'u-chueh. The far-flung network of contacts of the early T'ang courts gave way to a number of rising pro-barbarian factions, inaugurating a whole new pattern of political alignments. Thus the successor of Qutlugh, Mo-ch'o, in 697, allied himself with the Chinese to crush the Kitans, turbulent tribes of Liao and Jehol, without desisting in the meantime from pursuing aggressive anti-Chinese policies. This complicity allowed Mo-ch'o to annihilate the Bayirqu on the Kerulen and the Kirghiz on the Ienissei, to rally the tribes of the western khanate, and in 699, to re-establish the great Turkish unity from the Khingan

mountains to the Sea of Aral. This hegemony was short-lived. Despite the efforts of his nephew, Kul tegin, who handed on the throne to his elder brother, Bilge Kaghan (716-34), the tribes that had risen at the death of Mo-ch'o—the Nine Oghus, the Nine Tatars, the Uyghurs, and the Qarluq—were only with difficulty brought to heel. The precarious reunification of the eastern khanate did not entail the vassalage of the western. Yet, at the beginning of the eighth century, the Chinese court had for the fourth time to face a Turkish threat. The Emperor Hsuan-tsung dealt with it on the military level by careful alliance with the tribes of the Basmil and the Kitans. Peace was finally made in 721-2. Thanks to Bilge Kaghan, the eastern Turks now seemed to be entering on a new era; their civilization was able to enrich itself from the store of a new people able to write and sing its history, as may be seen from the Orkhon inscriptions, the oldest monument of Turkish literature. But Bilge Kaghan's death nipped this promise in the bud, and disturbances arose again with Basmil, the Qarluq and the Uyghurs disputing power among them. The Uyghurs, a Turkish people, succeeded in founding an empire that rounded off the destiny of the T'u-chueh. Faithful agents of the Chinese throughout their rule (744-840), the Uyghurs raised in their capital of Ordu Baliq (Qara-Balghasum) a high culture that made its influence felt deep into the Tarim basin.

Central Asia and the Arabs

While the first half of the reign of the T'ang concluded with the happy resolution of the problem of the antagonism of the eastern Turks and China, matters were otherwise in the west, where the vibrations of the Arab conquest were beginning to be felt.

From the middle of the seventh century the Arabs occupied the southwestern part of central Asia. Their main base there, Khurasan, was a good point from which to observe the hostilities of the ten or so kingdoms of Transoxiana (or Mawarannahr). These, among them Khorezmia, Ferghana and Tashkent, were subject to the ascendancy of Sogdiana and its capital, Samarkand. Further north, in the Semirechie, the old western T'u chueh territory was occupied by the two confederations of the Nu-shih-pi and the Tu-lu and the turbulent khanate of the Turgesh. These barbarian tribes bound by carefully negotiated alliances, enabled the kingdom of Transoxiana to combat the Arab advance. The forces involved in this advance were not great—scarcely more than 50,000 men—but that was more than any one kingdom could muster against them. The Turks themselves could be held in check with the aid of the Arabs; on several occasions, city sovereigns enlisted Arab help. The Arabs, for their part, never hesitated to intervene, and afterwards to assert their authority over the town by exacting tributes for the victor. At the end of the seventh century, the Arab danger was considered to outweigh the threat from the Turks. Sogdians and Bukharians perceived the objective of the caliphate and decided to unite. Backed by the khan of the Turgesh, they were

able to withstand successfully the attack on Bukhara by Qutayba ibn Muslim (707). Sowing doubt as to Turkish intentions, the Arabs broke up the alliance, and obtained from the Sogdians their agreement to withdraw to Samarkand. Thus abandoned, Bukhara fell. By such ruses and diplomacy the Arabs brought the whole of Transoxiana and Khorezmia into subjection, but frequent local revolts, and the ensuing massacres and reprisals, kept the country in a very uneasy state. The major effects of the Arab occupation were the confiscation of the lands and buildings required for garrisons and the Islamization of the territory, as witness the many religious buildings which sprang up. Another aspect of the penetration was the tax imposed on the natives; despite the Koranic law, even the Moslem natives had to pay a capitation tax (*jizya*). These extortions, coming on top of the burden of tributes and reconstruction levies, exasperated the subject peoples. In spite of two punitive repressions, which included massacres of all but the big merchants and collaborating members of the local aristocracy, the country continued to seethe with revolt. Arab occupation of Transoxiana, despite all attempts at conciliation and co-existence was precarious. In 740, when the Arabs were taking possession of Ferghana, the internal dissensions in the caliphate infected the victorious army. Antagonism between the tribes forming homogeneous units weakened it as a fighting force, to such a degree that, in 748, the Arabs refused to come to the aid of the defeated army of Sujab, which had been occupied by the Chinese. In 751, the situation became worse. Bukhara revolted and trouble was brewing in Samarkand. Abū Muslim, general of the Abbasids, dispatched Ziyad ibn Salih at the head of 20,000 troops to quell the revolt. He succeeded in bringing the country under control in thirty-seven days, and went on from there to inflict punishment on the Chinese butchers of Sujab. He met the Chinese army on the Talas, while his agents roused the Qarluqs. Attacked both in front and from the rear, the Chinese were seized with panic, and were taken prisoners in great numbers.

The significance of this battle on the Talas in 751 turned out to be cultural rather than political. Both Arabs and Chinese had at this point come to the perimeter of their respective spheres of influence. It is perhaps an exaggeration to say that the battle marked the halt of Chinese and Arab expansion; but it is in order to speak in terms of spheres of influence, even though these took shape rather as a result of the interplay of the barbarian khanates than through any direct action on the part of the armies concerned. A noticeable consequence of this confrontation was the number of Chinese craftsmen taken prisoner and transported, some to Samarkand, and others, in 762, to Kufa, the Abbasid capital in Iraq. Chinese craftsmen there set up the first paper-making industry, the products of which were gradually to spread throughout the Middle East, and, via the Mediterranean, to Europe. In the capital itself, the captives installed new looms and made silk gauze, while others, the painters in particular, initiated Iranian and Iraqi artists into the most lively traditions of Chinese art.

The Arab Occupation in Central Asia

In the middle of the eighth century the Abbasids ruled the whole of central Asia, and the disappearances of the khanate of the Turgesh (758) deprived the city kingdoms of the support on which they were relying in their struggle to throw off the Arab yoke. Despite recurrent risings, the caliph had become a sort of protector-suzerain, the legitimacy of whose authority its neighbours had ceased to question. The Arab occupation had not dispossessed landowners, but it had changed the whole conception of real property. Arab chiefs were given lands or whole villages, which they parcelled out to native cultivators. Application of the system of the Kharaj imposed a tax based on land areas of equivalent yield, and another, amounting to anything from 20 to 40 per cent, on the harvest. Presents and *corvées* made up the rest of the income of the occupier. The economic situation gradually stabilized itself, and, despite a series of revolts, partly of Manichaean or Mazdakite religious origin, the end of the eighth century saw definite signs of an improvement in the economy. Arabian currency was adopted in 792, and silver was then replaced by copper, to prevent too much of a drain of the precious metal to the nomads and to ease the demand on the scanty metal resources of the caliphate. There had been considerable technological advances, more particularly in the production of glazed ceramics, and in the construction of civil buildings and walls, as well as religious edifices, such as mosques and mausoleums.

The increased commercial prosperity restored the towns to their former importance, and manorial dwellings were abandoned. Whole regions and cases, from Khorezmia to Bukhara, already ruined and devastated by the war, were abandoned and reverted to desert; the vital centres shifted and the old manors survived only as cemeteries or ruins. Agricultural communities dwindled, while towns at the crossing-places of the great trade routes grew apace. The old town (*shaharistan*), which housed the landowners and the administration, was deserted for the suburb (*rabad*). There habitations for merchant and craftsman quarters quickly multiplied. Soon the suburb itself had walls built round it and became the city centre, comprising the finest civil and religious buildings. Towns perched high on the hillsides fell into ruin, the future being with cities where development was possible in all directions, to house the growing activity of the merchants. It was on these new centres that Islam established itself. They were centres of Arab administration and foci of activity for the great merchants and the landed aristocracy, encouraged by prospects of trade with Iran and Asia Minor. The towns thus tended to become the real centres of political administration, mercantilism and manufacture. The workshops served also as shop windows, while the caravanserais surrounded itself with rich residences and sumptuous gardens. Streets converged on the bazaar from the entrance gates—six at Samarkand, eleven at Bukhara, thirteen at Tashkent—as extensions of the roads running in an increasingly complex network across the country.

The upward trends, which were stimulated by the Arab occupation, could

not, however, completely counterbalance the severe blow dealt at the city kingdoms by Islamization, which had brought with it the devastation of the countryside, the burning of buildings, the disappearance of works of art and precious documents, the abandonment of the irrigation system, a decline in agricultural labour and a reduction in the amount of arable land. It was not until the end of the eighth century that the positive side became more apparent. The end was also isolation, due to the severing of links with China and India, and the adoption of the cultures of Iran and the Near East. Islam had appeared, bringing with it not only a new religion, but also a new language. The fire temples were gradually suppressed or replaced. At the beginning of the ninth century, a triumphant Islam ousted Mazdaeism, Zoroastrianism, Manichaeism and Nestorianism. The changeover was expressed in the architecture, in courts surrounded by galleries, in cupolas on buildings and a turning away from plastic art. There was no more sculpture or painting, although Islam condemned only religious idols, not secular images or statues. It was not a proscription, but a reduction of a field of artistic activity, and an important reduction in a period when religious building was in advance of other kinds. The official language being Arabic, autochthonous languages such as Sogdian and Khorezmian fell into disuse; the old texts were no longer understood, and a common script was used from Morocco to Ferghana. The Persian language, still in use in the administration, adopted Arabic metres. The one outpost of resistance was Semirechie, where the Qarluqs preserved the Sogdian traditions and kept Buddhism alive.

With the eighth century came an end to the existence of the old Indo-European countries of central Asia as independent historical entities. After being independent and then under the nominal protection of distant China, they were now absorbed by the Irano-Arab world. Henceforward the frontier of Islam was not to contract, nor that of Buddhism to stretch beyond the world of China. Subjected through the centuries to currents of influence from Iran, China and India, the central Asian region, from the Pamir to the Caspian Sea had opted for Islam and the world of its western neighbours following the movement of the Turkish peoples towards western affiliation.

The Zenith of the T'ang Dynasty

The policy of the T'ang emperors of the seventh century had brought about an appreciable economic development, by an increase in the area of land under cultivation, and an improvement of agricultural techniques, by the introduction of presses and water-mills and by double-cropping of the land. An increased population and good fiscal returns gave the country a prosperity and an income superior to those of the great empire of the Han.

The towns became great markets, economic and commercial centres which favoured cultural development. Furthermore, the enlargement of the territory brought the empire into contact with neighbouring culture and facilitated both the exchange of ideas and the play of foreign influences. The great communica-

tion highways were laid wide open; the big junctions, the capitals and the large ports, were thronged with foreigners. The latter already had, under the Sui, gained the right to settle near the markets, which were soon surrounded by colonies of Sogdians, Arabs and tribes from central and northern Asia, each group erecting their own church or temple opposite the pagoda.

One after the other, China had received Nestorianism, Mazdaeism, and Manichaeism. Nestorianism, introduced in 635, left some thirty or more works in Chinese, among them the text of the *Praise of the Holy Trinity*, which was discovered by P. Pelliot at Tun-huang. Nestorians collaborated in the translation of Buddhist texts, probably of Sogdian origin. Mazdaean temples were built in Kansu, and a special office (*sa-pao*) looked after the interests of the Mazdakites at court. Manichaeists, in flight from the persecutions of Islam, took refuge in China in the seventh century and converted the Uyghurs in the eighth, making Turfan their capital. Finally came the first waves of Islam. And elements of Moslem religion, impregnated with Iranian influences were added in the western reaches of China to elements of Buddhism which also showed Iranian influences.

As for Buddhism, though it suffered one or two setbacks, it continued its rise, and its importance at the end of the seventh century was so great that a fatal antagonism between its interests and those of the state had an adverse effect on the glorious destiny of the T'ang. The first emperor of this dynasty had brought back into fashion the study of the classics, distinguished exponents of which were Yen Shih-ku (579-654) and Kung Ying-ta (574-648). The study was boldly developed by the precursors of neo-Confucianism, such as Han Yu (768-824). To avoid alienating the peoples of central Asia or Tibet, however, the emperor protected the Buddhists, and accorded the pilgrim Hsuan-tsang a triumphal welcome. The usurping Empress Wu withdrew her favour from Taoism, with whose founder the legitimate line had links, and from the Confucianism of the loyalists, and pinned her faith to the Buddhists, allied to the rich foreign merchants. In the eighth century, the Emperor Hsuan-tsung reverted to the tradition of the T'ang princes, favouring Confucianism and giving pre-eminence to Taoism. His interest in magic encouraged the establishment of mystic Buddhism, the formulas and ritual of which became very popular. This period saw the establishment of a new balance of the religions, between the Confucianism of the *literati*, the Taoism of the nobility, and the Buddhism of the popular sects who were vowed to prayer, meditation, or mysticism. This eclecticism and the tolerance shown to foreign religions made the China of this time an international and universal spiritual centre. Rubbing shoulders with both priests and merchants, the artists contributed to the cosmopolitanism of the court. Chinese culture lay at the meeting-point of many foreign currents of thought. Turkish, Iranian and Indian influences all left their imprint on the artistic work of the T'ang dynasty.

Iranian influence proceeded faster because of a drop in Buddhist strength

in central Asia. In the seventh century the Sogdians abandoned Buddhism for Zoroastrianism, driving the faithful from the Buddhist temples of Samarkand, as the travelling monk Hsuan-tsang recalls. At the same time (677) the last of the Sassanids who had been driven out by the Arabs were seeking asylum at the Chinese court. The Sassanian style was carried into every part of Asia and had a marked influence on the arts of the imperial court, as may be seen in many of the presents sent by the Chinese to the Japanese sovereigns, and as may still be seen to this day in the splendid Treasure of Shōsōin at Nara.

Where Buddhist influence went, Indianization followed. It is to be seen in certain juridical principles, such as that of inalienable property, in commercial practices, in the loan against security, and in special charity, exemplified by hospitals and hospices. Indian expressions of the astronomical and mathematical sciences were represented at the court of Empress Wu Tsê-t'ien by Indian calendars (684), and at the court of Hsuan-tsung by the methods of calculation of Ii-hsing (721). The travels of Hsuan-tsang also tended to promote the Indianization of China through Buddhism; nor must we overlook the search after an orthodox discipline (*vijnaya*) and monastic rules that led the pilgrim I-tsing (634-713) to spend ten years studying at Nālandā and to return thence in 695 with 400 manuscripts. The intensive journeyings of missionaries between India and China, which often served as an excuse for the exchange of official delegations from the two countries, ceased in the middle of the eighth century with the journey of Wu-k'ung in 751.

Turkish influence made its mark principally in music and dancing, modes of dress and diet, and induced a new taste for grape wines and sweetmeats.

The barbarization of China in the seventh and eighth centuries was a remarkable transformation comparable to the westernization which has taken place in the twentieth century. It was very important in scope, at the same time perhaps quite superficial. The costumes of central Asia became fashionable, nobles and ladies of the court rejoiced in games like polo, which originally came from Tibet, and troupes of jugglers and clowns entertained the less active elements of the court. T'ang statuettes, which have been compared to the Tanagras of ancient Greece, showed women of gracious gesture, high-stepping horses, or groups of caravan dwellers in foreign dress, Semitic or Aryan in countenance, and even today tell us something of the fascination felt by the Chinese for everything that issued from the west. Already in evidence under the Sui, these fashions prevailed throughout the seventh century, but towards the middle of the eighth century a national reaction set in, and in many ways it became apparent that there was a desire to revert to indigenous sources of inspiration.

In this atmosphere of wide cultural contacts, art and letters blossomed and brought great glory to the T'ang dynasty. The minor arts were strongly influenced by the Sassanid arts: vases with long necks decorated with the heads of birds and fabrics decorated with pearly medallions. Thanks to Buddhism, sculpture made particularly spectacular progress, and Indian models assisted

in the evolution of the plastic style which gradually freed itself from its traditional bonds and adopted a realist trend; the statues of T'ien-long-chan and the realist effigies of the grottoes of Long-men, particularly enriched by Wu Tsê-t'ien, are good examples of this. Painting was relatively behindhand, perhaps because the temples monopolized all the artists for tasks subject to the requirements of ritual iconography, while relegating the promising efforts of the painters of the Six Dynasties to the background. The court of Hsuan-tsung, which was undoubtedly less Buddhistic than others, favoured the training of scholarly painters. The attention devoted to calligraphy in examinations as from the beginning of the T'angs contributed to an improvement in the technical skill of painters. The mastery over resources made possible by the paint brush soon allowed of the creation of calligraphic painting and monochrome painting; their development under the Songs raised them to the highest rank among world arts. To great painters such as Wei-t'che Yi-seng (c. 627) and Yen Li-pen (630-73), who introduced to the court of T'ai-tsung western notions such as the shapes of faces or profiles and the floral subjects proper to central Asia, to artists such as Lisseu-hium (651-716) who was the great painter of Kao-tsung and Wu Tsê-t'ien, succeeded Wang-Wei (699-759) and Wu Tao-tseu (700-70). The latter departed from the careful drawing and frank colouring of their predecessors; they idealized their painting, inspiring it with the purely Chinese currents of thought exalted by Ch'an Buddhism and Taoism. Resemblance was condemned, evocations were more appreciated and the treatment was extended, shapes being given a bold outline and the range of colours being reduced.

Poetry, the third volet of the scholar's triptych followed a similar course. The influences of the six dynasties, more concerned with beauty of form than with substance, persisted for some time with subtle attempts at musical effect, and an elliptical and allusive style. Great poets such as Li T'ai-po (701-62) sang of the beauty and love of nature. Their lyricism evoked the almost decadent atmosphere of the court of Hsuan-tsung where Yang Kui-fei, the famous concubine of the emperor, held sway. Tu-fu (712-70), the 'wise poet', wrote of human misery; he brings us today, not the echo of the rumours of the court but the deeper murmurings of the life of the people. His admirer Po Kiu-yi (772-846) left some of the most beautiful poems which the sufferings of a country have ever inspired. These are the only dissonant notes, for the reign of Hsuan-tsung, the golden age of the T'angs, symbolizes the zenith of medieval China; its civilizing action spread to all its neighbours, and the internal difficulties and military reverses it experienced do not appear to have threatened its power.

The Decline of the T'ang

While Hsuan-tsung lived his life of elegance and pomp, surrounded by one of the most brilliant courts in history, and in the most powerful country of its time, political and economic grievances that had long been festering under-

ground came to the surface, letting loose forces which were to weaken the country and to bring it in a short space of time to the brink of ruin. In 749, a few revolts having been put down with dispatch, Hsuan-tsung still held his empire intact. In 751, the Arabs crushed the Chinese legions on the Talas, while Ko-lo-fung, sovereign of the little Nan-chao state in the Unnan, inflicted defeat on the imperial armies. Kitan hordes, revolting in the north, defeated the intriguer An Lu-shan, the favourite of the imperial concubine Yang Kui-fei, who had been newly appointed to command of the northern marches. In Korea in 755, the kingdom of Silla began an expansionist movement, discreetly setting aside Chinese tutelage, and occupying the whole of the Korean peninsula.

These setbacks could have been overcome if the internal situation had not been in a state of chaos. The rate of deterioration in the egalitarian social structure increased. The peasants, crushed by the excessive burden of taxes, *corvées*, legal or illicit levies, pressed by the tax-collector and harried by the usurer, sought the protection of the powerful, and became tenant farmers or serfs on the great estates. By the end of the seventh century the disappearance of the independent peasant was making itself felt; in 780 only a quarter of the households could meet their obligations. The basis of tax assessment was then changed, from rating by number of families to rating by land area. The privileges of those holding manorial land (*ch'uang-tien*) were extended, while tax was doubled by requiring payment of it twice a year. Despite the deterioration of the agrarian situation, industrial and craft output continued to rise. In the ninth century, production of iron, copper and silver was twice that of the monasteries, which possessed many of the inns, coach-houses and storehouses and had a monopoly of mills and presses. Religious activity was regarded increasingly as a luxury, and the monks seem to be devoting themselves more and more to lucrative business enterprises. The reaction came in 845, when an imperial edict ordered the destruction of 4,600 temples and the unfrocking of 250,000 monks and placed their names on the tax rolls. 40,000 sanctuaries were destroyed, all lands were confiscated, the hospitals were secularized, 150,000 servants and slaves were withdrawn from monastic service, iron statues were turned into agricultural implements and those of bronze into coins. The measures taken were economic rather than anti-religious, the object being essentially for the emperor to muster capital. All foreigners came within the terms, and the proscription hit all foreign religions at a moment when the Uyghurs, protectors of Manichaeism, were losing their power, and Tibetan strength, which had sustained Buddhism, was on the wane. The central power, which Hsuan-tsung had already weakened by increasing that of the provincial governors, dwindled gradually. Revolts broke out. Chekiang went down in a blood-bath in 860, and the whole of eastern China rallied, between 874 and 884, to the rebel Wang Hsien-chih and to Huang Ch'ao his ally (875) and successor at the head of the peasant armies (878). Rescue came for the court in 884 in the shape of intervention by federated Turkish troops, the Sha-t'o,

but complete confusion reigned throughout the country, with every province declaring its independence under a king or an emperor. In 907, a former partisan of Huang Ch'ao proclaimed himself emperor of the dynasty of the later Liang. This marked the end of the T'ang empire and the beginning of the period known as the era of the Five Dynasties and the Ten Kingdoms.

In the north, five dynasties succeeded each other between 907 and 960, while the south remained divided into ten kingdoms, in which, in spite of broken-up area, peace and economic prosperity worthy of the great T'ang tradition nevertheless reigned.

The Five Dynasties, Heirs to the T'ang

This period of strife was in fact simply an extension of divisions that had appeared in the eighth century with the independence of the provinces; in this respect the two periods are identical. It is even permissible, in view of the reigns of T'ai-tsung and Hsuan-tsung, to call the first half of the tenth century the third flowering of the T'ang.

The ninth century appears as a period of political maturity, the administrative organization built up by T'ai-tsung acting as a stabilizing factor that made the half-century of the Five Dynasties an era of cultural and economic advance, which the China of the Sung had only to develop.

The towns, which were rectangular by tradition and consisted of square-shaped districts surrounded by walls, were the seat of the central authority. There were strict rules prohibiting people from having a door giving onto the main street. The inner city communicated, by strictly guarded gates, with the outer city. In the latter were to be found markets, shops and stalls ranged against low walls or grouped in alleys (*hang*) by corporation or trade. The activities of the merchants were closely supervised, and trading and the price of fittings were subject to a strict control. But the evolution of domestic and international trade under the T'angs broke up the artificial organization of chequerboard towns. At the end of the eighth century, the rigid arrangement of the towns broke down, and the population established itself in the outlying quarters (*siang*); the system of districts declined, the merchants organized themselves and the word *hang* (alley) took on the meaning of corporation. The conditions of urban development, characteristic of the Songs, were in fact fulfilled in the eighth century. Both in the capital and in the provinces, the economy of the country was subjected to state regulations. The vital problem of supplies was solved by means of scrupulously bureaucratic organization and a mixed economy, the private sector of which remained under supervision, whereas iron, salt and tea remained state monopolies. Inland waterways and the granaries were also run as state affairs.

The local courts protected the artists, arts and crafts developed and there were special improvements in the quality of ceramics, the use of which was continually spreading with the tea fashion, which had been launched and maintained by the Sseutch'uans; thus, the Yue ceramics adopted the motifs of

Sassanian goldsmith craft which were in fashion under the T'angs. Painting developed a new kind of landscape. Artistic men of letters living a long way from the capital and often not holding government office, devoted more time to the contemplation of nature. They conceived of a union between man and nature. This troubled century was the occasion for intimate reflection, while improvements in the quality of ink and paper and the lengthy calligraphic education of the T'angs bore their fruit. The humid lands of the south suggested new techniques, and outlines disappeared in favour of blurs and flat tints. Tong Yuan created a style which inspired the subdued wash-tints of the Sung. Other artists, such as Li Tch'eng in the north, brought under control the magic creations of the T'ang landscapes and imparted to their composition an ordered, monumental style which, to some extent, recalls the severity of Indian thinking.

Lastly, it was under the Five Dynasties that printing put in an official appearance. Derived from the ancient technique of seals and applied to the reproduction of religious images, it was subsequently used for texts such as that dating from 770 and conserved in Japan and that of the Sūtra of the diamond, which was engraved in 868. Undoubtedly, the technique had already been perfected by the end of the T'angs, but it was a minister of the Five Dynasties, Fang Tao, who made it official by obtaining from the emperor permission to print the classics (932-53). Well before the Songs, therefore, printing contributed to the spread of knowledge and provided a cement between the various kingdoms.

It may be said, then, that though their dynasty had fallen, the achievements of the T'ang bore their finest fruits under the Five Dynasties. The works of this period are the outcome of the two great T'ang trends towards the democratization and popularization of culture. As a result of the system of examinations, whatever deficiencies there may have been in the application, new social strata received education for the first time; the widening of the syllabus of the examinations produced a more eclectic class of *literati*. The requirements in the matter of calligraphy had widened the possibilities of the brush, and the *literati* became receptive of the vernacular. The common people pressed hard on the heels of the nobility at the same time as, under the influence of the barbarians, women approached more nearly the social status of men. The unity of the empire through three centuries and its expansion to the limits of the Asiatic world had led to an improvement in the communication network. The south, gently assimilated by the north, and despite its particular characteristics, was integrated into Chinese culture, which owed to it the unfolding of Ch'an thought, the extension of the use of tea, advances in ceramics, new conceptions in art and many new techniques. These currents of progress show that from the T'ang dynasty onwards Chinese civilization had reached some measure of maturity. It was to continue to develop through successive enrichments, but without ever knowing again the great advances of preceding centuries.

The Uyghurs and the New Barbarian Frontiers

The dissolution of T'u-chueh power enabled another Turkish tribe, that of the Uyghurs, to place itself, in 745, at the head of the peoples of central Asia. The Qarluq tribe fled west to the Semirechie, while the Sha-t'o took up a position on the borders of China and Turkestan, awaiting the moment to participate in the dismemberment of northern China at the fall of the T'ang.

For a century, dealing as one equal with another, the Uyghurs were faithful allies of the Chinese court. But though they helped to suppress the rebellion of An Lu-shan, they nevertheless sacked the capital, proving that they could be dangerous as well as valuable. One of the most surprising consequences of this co-operation was the meeting of the kaghan of the Uyghurs with Manichaeian missionaries. Almost immediately, Manichaeism, an object in the west of persecution by the Arabs, became the state religion of the most powerful kingdom of inner Asia. Adoption of this religion, with the charitable overtones it had derived from Christianity and Mazdaism, helped to civilize the rough horsemen of the steppe. Further, by its ceremonial requirements, it led to the introduction of milk and butter and was doubtless not without its effect in helping to turn the Uyghurs from their pastoral life to an agricultural one. Finally, this religion harmonized with Buddhism, for in Turkish territory each religion was manifestly influenced by the other. The term for the Buddha, *burqan*, for instance, is applied also to the Manichaeian saints. This Iranization of the Uyghurs through religion is expressed also in the adoption of the Sogdian alphabet, from which was developed a distinctive form of writing which replaced the old Turkish script of the Orkhon inscriptions. This invention made possible the translation of numerous Sanskrit and Chinese texts, and the creation of a national literature. For four centuries, armed with this intellectual superiority, the Uyghurs remained educators of the Turko-Mongol peoples. Their material power, however, was shorter-lived. In 840 they were crushed by Kirghiz hordes issuing, as so many others have done, from the high country of the Altai. The defeated Uyghurs, driven back, settled in the oases of the Tarim, there to pursue their religious and intellectual ideals. The miniatures of Idiqutshehri show the white-gowned Manichaeian priests and betray the Persian origin of their pictorial art. The Uyghur benefactors portrayed in certain Buddhist frescoes, with their mitre-shaped head-dresses and sumptuous robes, are all that remain to testify to the refinement and wealth of this island of culture in a barbarian sea.

The barbarians had not indeed all displayed so rapidly the amenities of civilization. In the west, the Qarluq, whose chief (*yabghu*) established himself at Suyab, were neighbours of the Arabs of Ferghana. The Qarluq with their 20,000 warriors controlled the region. This remained the great commercial transit centre between western Asia and the Far East. The Chu valley was in the hands of Sogdian merchants, colonies of whom had grown up all along the great transcontinental road. The Qarluq were satisfied occupiers, and they put

no obstacles in the way of peaceful commercial penetration by Islam, which left many mosques in the region of the Talas. Arab caravans crossed the country, making their way every three years to the Minussinsk basin, the domain of the Kirghiz.

The Kirghiz, inheritors of the old bronze cultures of Qarasuq and Taghar, former vassals of the T'u-chueh, had accepted the suzerainty of the Uyghurs. But their docility did not last long. Mustering 80,000 men, they allied themselves with the Chinese, and, in 840, overthrew the Uyghur power, possessing themselves of a vast territory, linking Islam and the world of China. Uyghur civilization disappeared from these lands, to be replaced by a more primitive culture, scarcely as yet emerging from a tribal economy. The newcomers, blue-eyed, reddish-haired and white-skinned, had received a considerable infusion of foreign blood from their Mongoloid neighbours. Their life was spent in hunting and fishing; but they also had a good knowledge of agriculture, testified to by remains of ploughshares, an irrigation system—some 25 miles of it—long canals and stout stone conduits. They used iron, tin, gold and silver, which were worked by their craftsmen, goldsmiths and armourers in a style renowned throughout northern Asia. They concerned themselves mainly with the rearing of cattle and sheep and, especially, large horses, though the basis of their trade was the exchange of precious metals, bamboo, musk, sable skins and a variety of furs for textiles, jewels and corn. Many Buddhist paintings show Kirghiz travellers in conical hats of white felt, with turned-up brims and belts with grindstones affixed to them.

Horse-rearing was an even greater speciality with their neighbours to the north-west, the Quriqans. These were one of the peoples furthest away from any centre of civilization. Living north of Lake Baikal, three months' march from the Kirghiz, they traded principally with the Chinese. Their horses were known for their strength and the ten famous chargers of T'ai-tsung have immortalized their memory. Another type of horse, less famed, was characterized by its silhouette: a large croup, an elongated body and a head in profile rather like that of a camel. This type of horse, known as the Axal-tekinsk, is closely related to the Scythian horses of the Altai. The Quriqans also practised agriculture, as may be seen from their systems of canals, some 6 feet wide and 4·5 feet deep. They were good metallurgists, producing, with the aid of skin bellows, iron that was 99·43 per cent pure. These tribes were in reality relatively civilized: only by comparison with the Chinese do they appear to be barbarians. Their emissaries, dressed in caftans and high boots, enlivened the imperial court, which received them, among other occasions, in 625 and 647, by hunting and by displays of their skill with the lasso and by brandishing their standards. Their neighbours in Manchuria, the Kitans and the Jurchens, shared a love of steppe and forest and must at this time have had a comparable standard of living. Only their future distinguishes them, since unlike the Kitans and the Jurchens, the Quriqans founded, in the tenth and eleventh centuries, the powerful empires of the Liao and the Kin. Mongolia and the

Altai were succeeded now as the cradle of peoples by the Manchu region, whose inhabitants, more lately come to civilization, were also more impatient and vigorous. The centre of barbarian aggressiveness shifted, then, in the eighth and ninth centuries, to the east. The first victims were the kingdom of Po-hai (713-927) and the Korea of Silla (668-935).

B. The New Kingdoms

The civilizing of the countries bordering China led, in the seventh and eighth centuries, to the birth of new kingdoms, Tibet and Po-hai, and to the unification of Korea.

Tibet

On the north-west border of China, at the Kuku-nor, the T'u-yu-hwen horde, which stemmed from the western expansion of the Sien-pi and which constituted a threat to the Chinese territories of Kansu, was finally routed and fled into Tibet. Thus this region came in more direct contact with China. Tibet could trace its history back to the end of the third century, when, so legend had it, the first king of Tibet, an Indian, ascended the throne. The inhabitants, according to the Chinese sources, were severe and strict in the application of their laws; they respected adults and despised old age; the mother bowed before the son, the son took precedence over the father; when passing in or out, the young went before the old. The Tibetan kingdom was the work of the federator, Srong-bcan Sgam-po, who joined to the crown the three domains of the Tibetan princesses whom he married. As a convert to Buddhism, he obtained the hand of an Indian princess, and following a peace treaty he signed in 641 with T'ai-tsung of the T'ang, that of a Chinese princess related to that emperor. This treaty of 641 marked the conclusion of the first of a series of ten wars that punctuated Sino-Tibetan relations from the seventh to the ninth centuries. Pillaging expeditions and raids were so frequent that, throughout that time, the Tibetan threat exercised the Chinese considerably more than the Arab menace. The Chinese general, Kao Hsien-chih, the arrogant viceroy of the Tarim, had derived all the prestige he enjoyed, before his defeat on the Talas, to victories over the Tibetans. In the eighth century, Tibetan writ ran from Khotan to Hsi-ning, and embraced even Uyghur and Nepalese territory. Chinese protocol of the period gave Tibet precedence over Korea, Japan and the Arabs. In 763, Tibet could consider itself the greatest military power in Asia. Its troops seized the Chinese capital, the marvellous Chang-an. They enthroned an emperor, inaugurated a new era, appointed officials and, at the end of a fortnight, left the town, having sacked it. But Chinese diplomacy had one of its most skilful feats of sleight of hand in store for the subjugation of the Tibetans. The glorious sovereign, a convinced Buddhist, invited an Indian pandit, the famous Padmasambhava, to subjugate the demons that ravaged the country and end the conflict that had arisen

between local divinities and the new ones, Lha-čhos and Bon-čhos, as he had, in Japan, resolved the conflict between the Kami and the hotoks. This led to Buddhism being officially adopted. Later, in connection with a controversy that threatened Buddhist unity, Chinese missionaries went to Lhāsā to attend a council that lasted two years. The Chinese attended in order to defend the principles of the meditative Ch'an sect, but this was, in general, incompatible with the warlike disposition of the Tibetan king. They were unable to make their point of view prevail, as the Chinese court had hoped, but they managed to indoctrinate the Tibetans with a languid quietism that was to transform that turbulent and warlike people. To the great satisfaction of Chinese diplomats, gradually Tibetan sovereigns came to be Buddhist rather than militarist. Even the proscription of 838, which lasted eighty years, did not change the new Tibetan destiny.

Po-hai

At the other end of China, while Tibet was succumbing thus to the attraction of Chinese culture, there emerged in Manchuria a new kingdom, Po-hai. Since the fifth century, the Chinese court had had relations with the Tunguz populations of the Sungari basin, who brought them horses as tribute. Particularly notable among these tribes were the Mo-ho. They lived in huts with circular openings, which they entered by means of ladders; they raised horses and pigs, grew cereals and vegetables and hunted, especially the sable. The men dressed in pigskin, with head-dresses of tiger or leopard tails; their women wore canvas skirts. In 611 they were conquered by the Sui emperor, who confined them in Jehol. Then the T'ang enslaved them and annexed their territories, appointing the tribal chief as governor-general (*tu-hu*). In 668, after the destruction of the Kokurye by the T'ang, refugees from that country joined with the Mo-ho tribes to establish on the lower Hurka (Mou-tan-chiang) a state which they called Po-hai. In 712, the Emperor Jui-tsung, conferring on the sovereign of this region the title of governor-general, recognized him as a king. Thenceforwards, fourteen sovereigns succeeded each other at the head of the state, which lasted 214 years. Po-hai gradually assumed the political rôle that had been Kokurye's before its annihilation. The country was organized in fifteen prefectures (*fu*), sixty-two districts (*chen*) and five capitals, and its administration followed the T'ang pattern, with its high officials of Right and Left. The kingdom was known especially for the stags reared at Fu-yu, the horses of Shuai-pin, the silk manufactories of Lung-chou, and the rice of Lu-chou. From the beginning of the eighth century its tributes were much valued, whether they took the form of honey or furs, gold and silver statuettes, jewels, or silks. Buddhism had very rapidly replaced the old ancestral Shamanist religion. In addition to the numerous emissaries they sent to China, the Po-hai sovereigns maintained continuous relations with Japan, sending thirty-five delegations in two centuries and often exchanging sables for silk.

The Kitan Kingdom

West of Liao, the Po-hai had as their neighbours the turbulent Kitans. The Kitan tribes had, since the fourth century, figured among the eastern barbarians, and had taken the name of one of the clans affiliated to the Sien-pi. Pressed by the Mu-jong, they had withdrawn to Jehol, where they were ruled by the T'o-pa Wei. In the sixth century, they were overwhelmed again, this time by the northern Tsin, before submitting to the T'u-chueh. The T'ang empire made vassals of them, taking horses and sables as tribute. The chief of the Kitans, appointed by the governor of his territory, administered it according to tradition, dividing the land into aimaks, that is, into circumscribed areas devoted to hunting or fishing. After a long period during which the ruler was elected by his subjects, the title became hereditary in 717. In the eighth century, stock-rearing gradually prevailed over hunting, and the ninth century saw the spread of agriculture. In his capital, the native governor was surrounded by officials after the Chinese fashion, numerous craftsmen supplied the needs of the people, scholars delved into the occult and schools prepared new cadres. Athletic tournaments kept physical fitness to the fore; many of the population became conversant with Confucianist, Buddhist and Taoist thinking. In 907 the power of the country was such that its chief A-pao-chi was able to assume the title of emperor and found the Liao dynasty. The rule of this house gave the Kitans control of the steppes for two centuries. Coveting China, its members consolidated their rear by the conquest of the brilliant kingdom of Po-hai, which disappeared from history for ever. Their ambitions were suddenly thwarted, however; they found themselves confronting, not a China weakened by divisions, but a new empire revitalized by the Sung dynasty.

Silla

The time of the emergence of the Kitan power saw the repercussions of the fall of the T'ang beginning to act on the destiny of the Korean kingdom of Silla. This kingdom, which owed its birth to the T'ang, had been a most faithful replica of the Chinese empire. As in the empire, land in Silla was the property of the king, and was similarly farmed out to tenants. The aristocracy and officials then also received ten times more land than the peasant. Taxes were levied in kind and as *corvées*. But over-faithful copying of the T'ang system produced the same results and the country split into independent regions, threatening the territorial unity. One of these independent regions seized power in 938, and reunited the whole peninsula under its own authority. From the seventh century to the beginning of the ninth, Korea, under the Silla dynasty, had experienced an exceptional rise. More favourably situated in this respect than the kingdom of Po-hai, Korea profited from maritime trade, controlled by Arab and Persian merchants, to the mouth of the Yang-tse-chiang; there began the sphere of activity of the Koreans, who undertook distribution, both in northern China and in Japan, of the immense resources of inter-

national commerce. It is not surprising that, in the two capitals, the Koreans constituted the largest foreign colonies. Furthermore, the Koreans knew how to take fullest advantage of the opportunities offered by official visits and ambassadorial missions; such missions were always accompanied by scholars, monks and young noblemen. It was one of these young Korean travellers who stayed in China and became the famous general Kao Hsien-chi, victor of the Pamir and vanquished at the Talas in 751. Many Korean monks also went to China, and pushed on, like Hui-ch'ao, into India. Although the relationship of Korea with Japan is often emphasized, since the former transmitted to the latter Chinese culture patterns, it should be borne in mind that Korea's ties with China were more important and consistent. In spite of the grandeur of her great neighbour, however, Korea contrived to evolve a distinct culture. The splendid seventh-century sculptures at Pulkuksa and the eighth-century ones at Sokkulam convey a sensibility which is different from that of China. Certain details are striking, such as the reliquaries, which are solid while Chinese ones are hollow. Numerous original features appear in jewellery, as is shown by the famous royal crowns. The Buddhistic art of Silla spread as far as Japan, where its maitreyas in meditation inspired that of Horyuji. But side by side with these original creations, it must be recognized that certain objects appear to be replicas of Chinese works of the T'ang period. The high level of culture is still attested by the oldest observatory tower, constructed in 647, and by the reputation of the University of Seoul, which was founded in 682 and which, as from the eighth century, provided courses in medicine, mathematics and astronomy. But it was only under the following dynasty, the Koryo, that an independent Korean culture really emerged as such. T'ang China was too powerful, its domination of its neighbours too complete. The same was true of Japan, unable to evolve a truly national culture before the tenth century.

C. The Birth of the Japanese Empire

Since the fourth century, Japan had been living under an aristocratic régime of a tribal character. In the sixth and seventh centuries A.D., the spectacle of Chinese power and a realization of the advances achieved in Korea induced the sovereigns of Yamato to fall into line with developments on the continent. But the advent of an absolute monarchy was not accompanied by any effective centralization. Japan, as it was then, was far from possessing geographic or economic unity; there were few roads and no towns of any importance. These were not circumstances conducive to the disappearance of clan rivalries, but these rivalries found expression, not in any anti-dynastic movement, but in competition for the first position, as protector of the crown. The Soga clan was able to hold on to the high office of First Minister until 645. Gradually the power of these protectors widened, and became almost hereditary. The Fujiwara clan monopolized the position of regent (*jōko*) from the seventh to

the twelfth century, when the Minamotos inaugurated the era of military dictatorships, the chiefs (*shōgun*) of which continued to exercise full powers up to 1868. The process of centralization was paralleled by a system of the doubling of authority. Attack was never made on the imperial line, but successions were always arranged according to the preferences of the dominant clan.

The Regent Shōtoku

The weakening of Japanese positions in Korea had led the Yamato court to treat directly with China. For more than a century the Japanese, spellbound by the glories of the Chinese court, were to experience the charm of its imposing civilization. This period is dominated by the figure of Shōtoku Taishi (593–621), regent for the Empress Suikō, the heiress of the Emperor Yomei (585–7).

Shōtoku (Pl. 11b) contrived to crystallize the Sinophile tendencies that were the expression in the Japanese aristocracy of an urge to modernization which was indispensable to the country's survival. Through him, Chinese culture, Confucianist, Taoist and Buddhist, made its imprint on the new island empire. His rôle was so dominant that it is hard today to distinguish the legendary from the historical amongst the many innovations attributed to him. In 604 he promulgated an edict of seventeen articles, a sort of constitution, or manifesto rather, setting forth religious and political principles. In it are to be found the Confucianist virtues of obedience, equity, politeness and sincerity, rubbing shoulders harmoniously with the Buddhist injunctions to solidarity, justice, zeal and disinterestedness. Although it was a declaration of the Duties of Man, this text reinforced the principles of governmental authority, serving as a prelude to the political measures of the following years. Thus active in the moral field, Shōtoku was also busy in the spiritual world. He was a convinced and learned Buddhist, and he produced his own commentary on three Sutras. Here he formulated his syncretic attitude to the identity of daily living and the true life, the practical application of religious principles in the everyday life of the subject and a rule of life in society for women. His ideas, inspired by the Mahāyāna, had a very deep formative influence on Buddhism in its early days in Japan. His faith was always to retain a predilection for precepts postulating perfect accomplishment of the daily task as the spiritual way. In his religion as in his political thinking, Shōtoku sought to produce a committed citizen, following an all-embracing rule of life. In this, he is in full accord with the leaders of revolution, and his ideas remain the supreme point of reference for reformers.

The positive achievements of the regent were the product of his thinking. For his religion, he founded numerous temples and hospices, among them Shitennō-ji, with special buildings for the poor, the wretched and the sick, and Houjū-ji, designed for Buddhist education. A few facts about his work are thus ascertainable, but it remains true that the legendary aura enveloping his

reputation rules out any attempt at an interpretation of his activity. The one definite fact to be added concerns the part he played in relations with China. To him goes the credit of having sent, in 607, the first Japanese ambassador to the Sui Yang-ti. The text of the address presented from the Emperor of the Rising Sun to the Emperor of the Setting Sun was not properly appreciated by the Chinese potentate, who thought it somewhat insolent. The mission, nevertheless, proved to be the first of many. Chinese and Korean doctors came to settle in Japan, while Japanese scholars, monks and *literati* went to seek out in the Chinese capital the teachings of a culture which was already a thousand years old.

The Soga

The strong personality of Shōtoku must not be allowed to obscure the important part played by the protector clan, the Soga, which, from the beginning of the sixth century, monopolized the office of First Minister. From 552, the year of the dispatch of a Buddhist statue and sacred texts by the Korean court of Paikche, the Soga had been fervent propagandists of the new religion. They saw in it an instrument of unification, above the passions and local practices which were so fiercely defended by the adherents of the national cult, the Nakatomi. The nomination by the Soga of the Regent Shōtoku marked the clan's triumph over their opponents. Unfortunately, on the death of the regent, the chief of the Soga, Yemishi, betrayed the ideals of the clan and coveted the throne for himself. Only a strong opposition movement, supported by the Nakatomi, restrained him. The central power was consolidated, thanks to the Code of Taika (646). This measure, for which the Chinese political system was the model, ushered in an absolute monarchy. The promoter of it, Nakatomi Kamatari, received as a reward for his services the name Fujiwara, to be borne henceforth by the family that now replaced in power the finally eliminated Sogas.

The Taika edict laid the foundations of a Chinese-type government in four articles: the abolition of private land ownership; the organization of a capital and a central administrative region (*kinai*); the establishment of population lists for the distribution of land; and the modification of the fiscal system. This revolutionary concept was made realizable forthwith through one or two strategic devices. The officials who were to form the administrative machinery of power were in fact the former landowners and local lords, and official salaries took the place of the revenues paid by the small men. Thus the masses benefited by the reforms while the upper class simply kept their places in the hierarchy under a different name. The reform at the time was in fact no more than superficial. Organization on the scale visualized was only practicable half a century later, when the Code of Taihō (702), a complete assembly of all texts governing political institutions and the administration, was promulgated. The eighth century thus opened a new era, which was given definite expression in the setting up of a new capital, Nara.

The Century of Nara

In less than a century, three sovereigns succeeded each other, the last reigning twice, once as the Empress Kōken and then, after a seven-year interval, as the Empress Shōtoku. The real controlling figure was for some fifteen years the monk-chancellor, Dōkyō, who completed the Buddhization of the court after the twenty-five year reign of the saintly Emperor Shōmu. In this way, the foreign religion became the great church of the empire and the strongest power in the state. It was responsible for the splendours of Nara, which, marvellously preserved or restored, are still to be admired today.

Unlike China, Japan had not opposed Buddhism with its own traditions. There was some resistance at first in high places among the national priesthood, but the people saw nothing to object to, and the intellectuals had no comparable philosophy with which to fight it. The wide, tolerant, syncretic way of the Mahāyāna could embrace the old nature cults and the whole pantheon of agrarian deities. All that Buddhism brought—moral rules, social precepts, instructions, modes of literary and artistic expression—was new, modern and a source of progress. The Chinese Buddhist spirit of the Sui at the end of the seventh century exalted emulation, as may be seen from the centralization, from 685 onwards, of provincial temples (*kuminiji*). A count in 692 showed already 545 religious edifices, all of them under court patronage and exempt from taxes.

As in China, the expansion of Buddhism resulted in an upsetting of the balance of the economy: for the Buddhist priests shared with the aristocracy the privileges that were undermining the effectiveness of the system of land distribution. The same structural vices in the agrarian system were to set Japan, almost at the same time as China, on the road to a feudal system. The transition went on throughout the eighth century. The distribution of land was in theory equitable, and revision of it every five years constituted a certain measure of safeguard against abuses. As in China, however, the privileges of the court destroyed the theoretically efficient system. In China a tried administrative machinery maintained this in being for more than three centuries, whereas in Japan the absence of a firmly grounded provincial organization and the inadequacy of the means of communication resulted in its collapse in under a century. The loss of domains led to a fall in fiscal revenue, and the answer to this was distribution of new lands by the government. To encourage land clearance, land was declared private property for a generation. First results were encouraging; aid given by the State in the form of iron tools contributed to a definite improvement in the agricultural situation. But the administrative machinery was too fragile and the lords could twist the texts to their own interpretation or disregard them. The great landowners, and especially the priests, exempted from tax on the new lands by the Buddhist, Emperor Shōmu, were able to exact dues from tenant farmers. By lowering rates, they attracted many peasants, and could reform great estates. As in China, the average peasant found himself hopelessly over-taxed unless he attached himself to some great

protector. The general agricultural situation was certainly better, but the power of the government had nevertheless been considerably diminished. Gradually the great estate owners began to derive advantage from their investments in manpower and equipment and to eliminate all competition.

The favour of the court had helped to place the nobility and the clergy in a position of strength. The policy of Emperor Shōmu was most significant in this connection: land granted to religious orders were exempt from tax for three generations. After 743, the exemption was made perpetual; finally, in 749 he repealed the edicts of 711 and 713 concerning appropriation of new land (*konden*), in order to be able to allot land to Buddhist institutions. Nobles' estates, temple property and new land, thus all escaped fiscal obligations. The system established by the Code of Taika collapsed utterly. The court continued to exist only by courtesy of the great lords. The fruits of the Buddhist and Confucianist experiments were not lost, however, for, in a century, there had accumulated numerous cases of jurisprudence which constituted the corpus of written laws. As from the beginning of the century, the Chinese habit of geographical descriptions was adopted, and each province had a compendium of its usages and customs (*fudoki*). The dynastic historians of the mainland inspired the drafting of the *Kojiki* in 712 and the *Nihonshoki* in 770. The purpose of these works was to demonstrate the divine origins of the imperial dynasty; they described the history of past centuries since the beginning of Japan. In 785, the compilation of the *Manyōshū*, a collection of local poetry transcribed into Chinese characters, was completed; these bore witness to Confucianist and Buddhist influence.

The great century concluded with setbacks, but behind the breakdown there had developed the natural elements of Japanese civilization. An energetic emperor, Kammu, sought to re-establish order in the empire, shaking off, first of all, the Buddhist grip. He placed the capital at Heian, the present-day Kyōto, thus opening a new period of Japanese history.

2. THE INDIAN WORLD

A. The Indian Area. (Map VI.)

When Ephthalite political power was brought to an end, life in India resumed its interrupted course. The Ephthalite invasions, however, are not to be taken as marking the end of a major historical period. Here, as in the Mediterranean area, in Pirenne's view, transition to a new era took place with the advent of Islam.

Buddhism, so far in the forefront of cultural development, was to suffer steady extinction almost throughout Indian territory; but this was to be the last phase of a long struggle in which Hinduism had been gaining ground, if only by penetrating the idealistic thought of the Yogāchāra. Buddhism did continue to flourish in certain provinces such as Magadha or Kāshmir; it did

not disappear from either Nepal or Ceylon; and it was to survive in part by the influence it had on both the Kashmiri and the Tamil Vedantic form of Śaivism.

A new equilibrium also came in the field of politics. The Dravidian world took on an increased importance, and more directly influenced the cultural life of India as a whole. To the Kannada and Tamil countries fell the rôle that Teliṅgāṇa had played at the height of Andhra power; Māvalipuram has an artistic importance comparable with that of Amarāvati, and Śaṅkara was Tamil as Nāgārjuna had been Telugu.

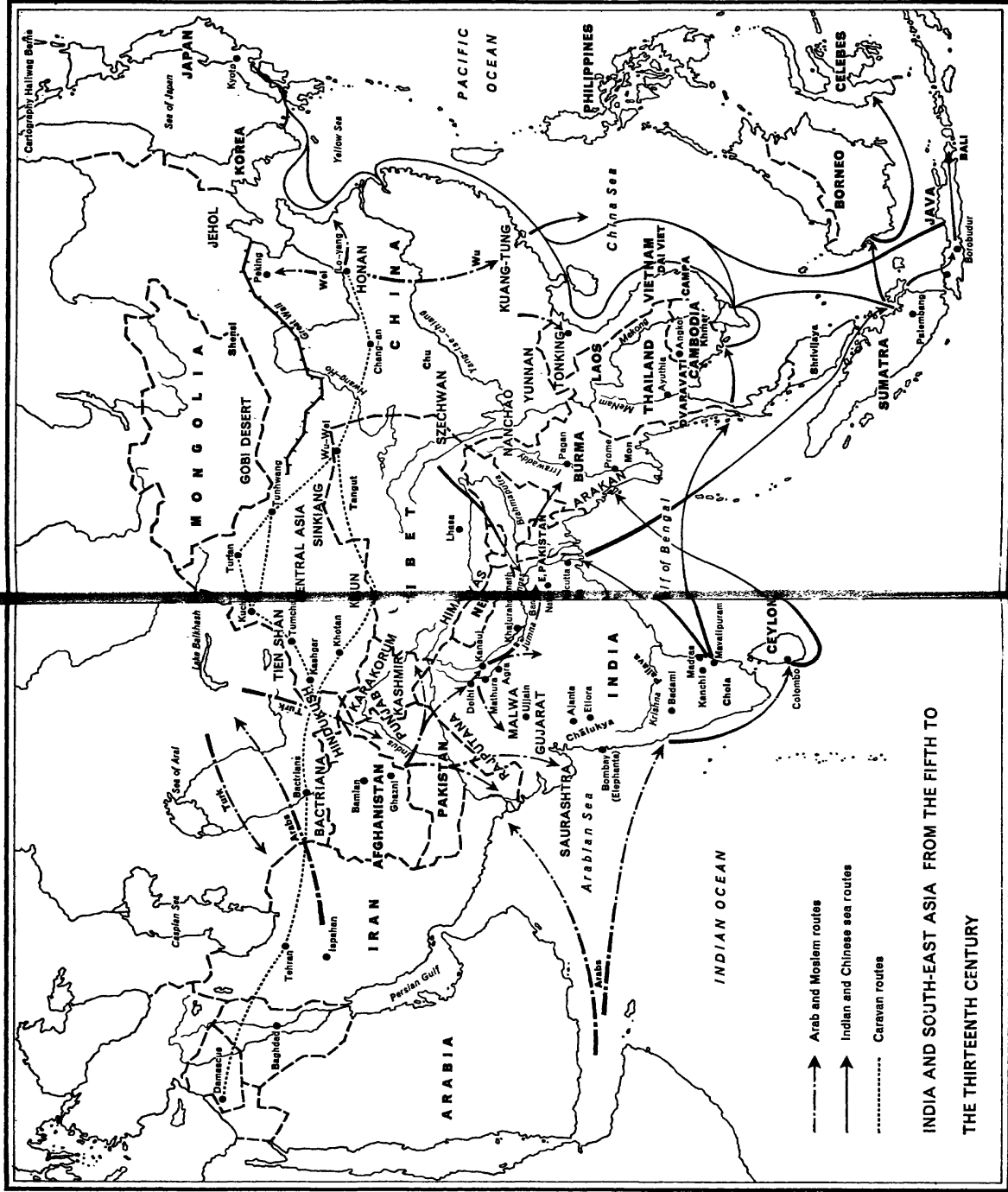
The sudden expansion of the caliphate barely touched on Indian territory, and the arrival of Moslem troops in India proper was very late. For four centuries, Indian soil was untrodden by an invader, and this period, dismissed sometimes as a period of decline after the splendour of the Guptas was, if not an era of peace, (for there were many internal conflicts) at least a time of prosperity and of cultural development. Notable contributions to literature, the arts, and the sciences were made. In the field of law it is a period of prime importance; jurists for the first time concerned themselves with evolving a practical law based on the theoretical principles of the Treatises. And the development of the Vedantic metaphysics in these years is the richest chapter in the history of Hindu philosophy.

It is arguable, however, that the absence of contacts with the outside world cut off northern India from potential sources of renewal. This isolation certainly induced in the Indian princes a sense of war as a sport, in which what was at stake was their honour, not their very existence (Dharmavijaya theory); but Indian civilization, at a time when exaggeratedly scholastic formative disciplines tended to paralyse creative energy, developed in a closed system, which was content simply to enrich a brilliant heritage, of which it had good reason to be proud.

It would be wide off the truth, nevertheless, to suggest that the centuries preceding the incursions of Mahmūd of Ghazni were without their significance for the history of cultural relations. If India received little, it gave much. The conquest of Sind in 712 by Mohammed ibn-Qāsim brought the Arabs in contact with Hindu civilization; it made a deep impression, and they proceeded to draw heavily upon it. As early as the reign of Mansūr, Arabic translations were made of two astronomical works. Subsequently, in the caliphate of Harun al-Rashid, the Barmak family sent students to India to study the various sciences and brought Indian scholars, particularly physicians, to Iraq. At this early stage Indian influence on the Arab civilization definitely outweighed that of the Greeks.

Harsha, the Pallava, and the Chālukya

In the second half of the sixth century, following the reign of Yaśodharman of Mandasor, who wielded authority over what was probably a considerable area, the Maukhari family exercised the most extensive power in northern



India. Their capital was the town of Kanauj (Kānyakubja) situated on the Ganges above its junction with the Yamunā. (Maps VII, VIII.)

At the beginning of the seventh century, the king of Kanauj married the Princess Rājyaśrī, daughter of the king of Thānesar. The kingdom of Thānesar had, by reason of its geographical situation, been called on to do battle with the last of the Huns in the Punjab. It had thereby acquired a certain prestige, and the marriage allied the two most powerful dynasties of Hindustan. The crown prince of Thānesar, Rājyaśrī's brother, was actually in the field, at the head of an expedition against the Huns, when his father died. The king of Mālwa took advantage of this absence to put to death the sovereign of Kanauj, ally and son-in-law of the dead king. The new king of Thānesar thereupon left his younger brother, Harsha, to look after the kingdom, and hastened forthwith to Kanauj to avenge the death of his brother-in-law. But having inflicted punishment on the king of Mālwa he was himself in turn surprised and killed by Śaśāṅka, king of Bengāl.

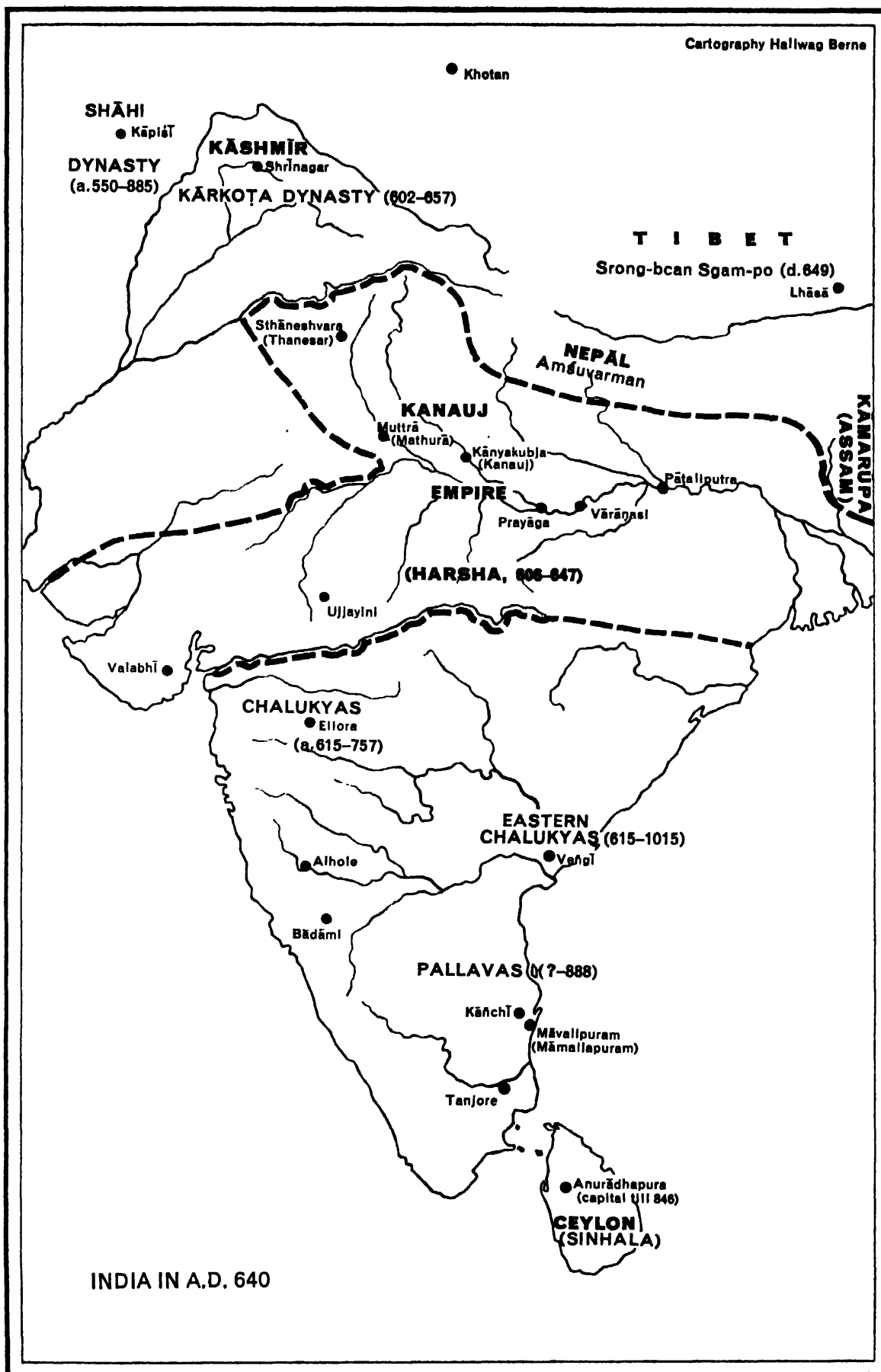
Harsha. Harsha thus found himself, at the age of sixteen, at the head of the kingdom of Thānesar. The offices of protector of his sister, widow of the king of Kanauj, also fell naturally upon his young shoulders. To all intents and purposes the destinies of the whole of northern India now rested with him, and the feudal lords made him the offer of imperial power. The boy, who was inclined to be a mystic, was undecided whether to accept the charge, and, legend has it, did so only after a visitation by the Bodhisattva Avalokiteśvara. Even so, he refused to assume the title of emperor. This is the account, very largely true, given by Bāṇa, Harsha's historiographer, and the Chinese pilgrim Hsuan-tsang, whom the pious sovereign welcomed to his court and honoured with his friendship.

Harsha was a very great sovereign, and, thanks to Bāṇa and Hsuan-tsang, probably the best known of the Indian kings. He was a patron of letters and himself wrote several plays and religious hymns. Hsuan-tsang praises the piety of this son of virtue (Śilāditya) and his slightly extravagant munificence.

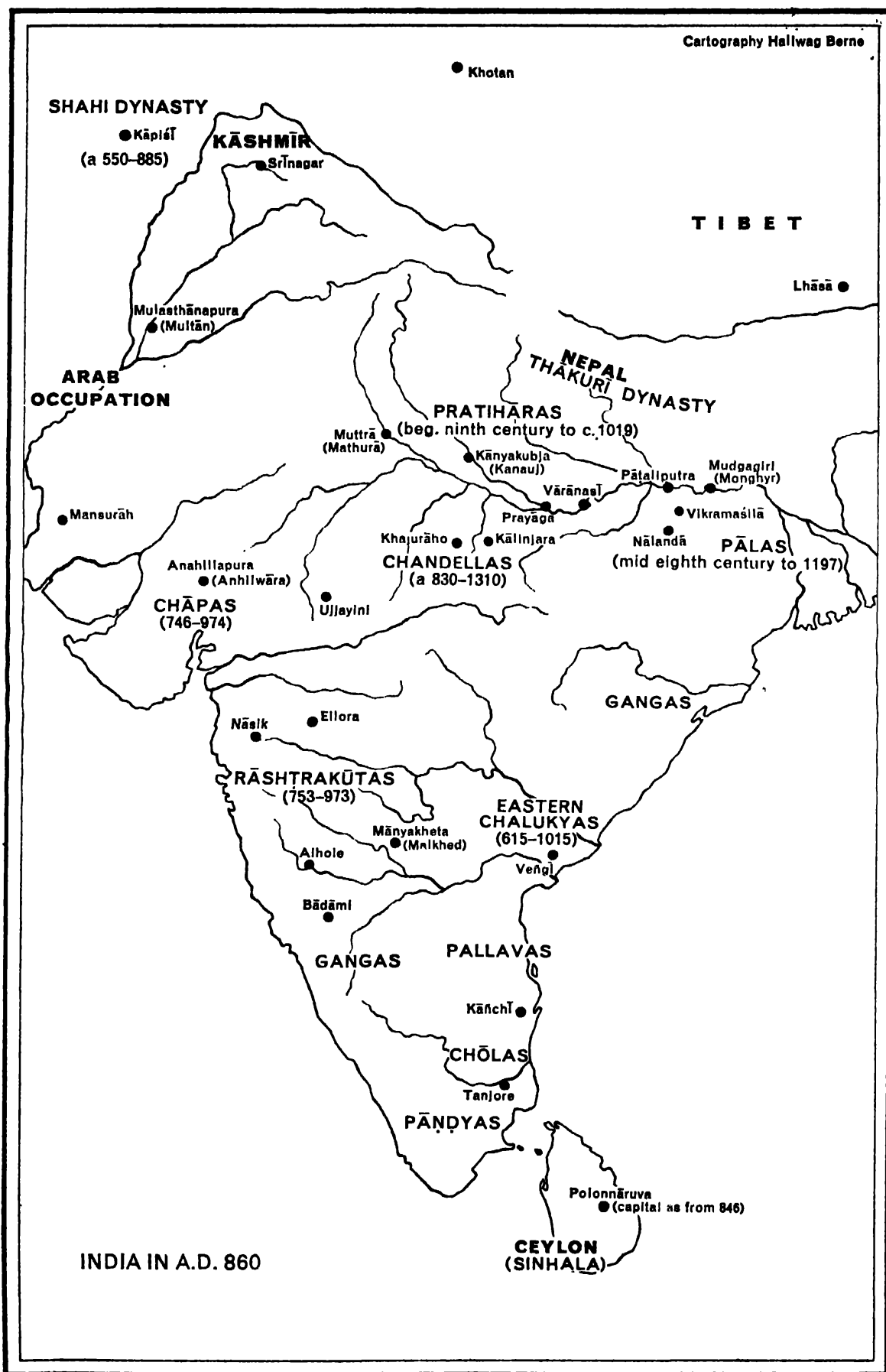
Harsha the monk and crowned poet, however, is only one side of the picture. To establish his authority in northern India, he had to wage a war lasting five and a half years. It is only with the assistance of his friend the king of Assam, who shared his Buddhist fervour, that Harsha vanquished Śaśāṅka, the king of Bengāl, who was a rabid opponent of Buddhism.

He had to confront many difficulties, waging war not only in northern India, where his possessions stretched from Kāthiāwār to Bengal and Orissa, but also against King Pulakeśin II of the dynasty of the Chālukya, the most powerful ruler in the Deccan, who checked the southward expansion of Kanauj empire at the Narmadā.

Shortly before A.D. 600, the Deccan had taken on new political importance when the two great Chālukya and Pallava blocs were formed. Both these people were foreign to the Dravidian country. Attempts have been made to link the



MAP VII



MAP VIII

Parthians (Pahlavas) with the Pallava dynasty, which from the fourth century ruled the northern part of the Tamil country, and rose in the sixth century to considerable importance under Simhavisnu and, especially, under his successor Mahendravarman I.

The Chālukyas. The Chālukyas, who considered themselves kshatriyas and thus descended from the sun, may have been Gurjāras or Rājputs. They make their appearance in the Kannada country around Vātāpi (today Bādāmi), which was their capital, and the holy town of Aihole. They ruled the Marāṭhā country until 757, when they were overthrown by the Rāshtrakūṭas who, until then, had been their vassals. The Chālukyas seized power back from the Rāshtrakūṭas in 973, and founded a new dynasty which reigned until 1190 and is known as the Chālukya dynasty of Kalyāṇi, though in fact its members ruled for a long time from Mānyakheta (Malkhed), former capital of the Rāshtrakūṭas. A branch of the family, the Chālukyas of Veṅgī, or eastern Chālukyas, ruled for four centuries (615–1015) in Telugu country.

The Chālukyas make their mark from the very early years of the sixth century with their religious foundations; the three towns Bādāmi, Aihole, and Paṭṭadakal, are among the outstanding architectural centres of India. It was Pulakeśin I and his sons, Kīrtivarman I, who in 578 brought to completion the cave-temple No. 3 of Bādāmi, and Mangaleśa Prithvivallabha, who laid the foundations of Chālukya power. The first great name, however, is Pulakeśin II, the contemporary and adversary of Harsha.

The Pallavas. In the first half of the seventh century, two great sovereigns reigned in the Pallava country, Mahendravarman I (600–25) and Narasiṃhavarman, surnamed 'the great athlete' (Mahāmalla) (625–45). The two families disputed power in the Deccan, where Mahendravarman was at first worsted by Pulakeśin II, who advanced near to the capital, Kāñchī. The victor established his brother, in the former southern dominion of the Pallavas with the title of viceroy, but the younger Chālukya repudiated his brother's suzerainty and became the founder of the dynasty known as the Chālukya of Veṅgī. The Pallava king, meanwhile, was making up for his southern defeats by victories over the Chōla. He occupied Trichinopoly (Tiruchirapalli), where, being converted to Śaivism, he founded temples and persecuted his former co-religionists, the Jains.

Pulakeśin checked Harsha at the Narmadā, and turned his energies towards building up the prosperity of his kingdom, praised by the historian Hsuan-tsang. He appears to have sent an embassy to Chosroes II in 625, but the end of this brilliant reign was a disaster. Mahendravarman I's successor, Narasiṃhavarman, founder of the religious city to which he gave his surname of 'great athlete' (Māmallapuram, or Māvalipuram) avenged his father's humiliations by inflicting several defeats on Pulakeśin and seizing his capital. How or when Pulakeśin II died is not known, but his successor does not appear until 654.

Political Confusion after the Death of Harsha

The long reign of Harsha, which extended over forty-one years, might have been the restoration of Gupta glory. At his death in 647, however, his empire crumbled again. The feudal lords, on whom he had imposed his sovereignty, reasserted their independence. There were many great families ruling small areas, but frequently they strided among themselves and confusion mounted. Through all the political disorder, however, there are constants discernible, and first among these is Kanauj. Despite the confusion, the imperial idea persisted, and, although the Harsha empire was small when compared with that of Candragupta, Kanauj from Harsha's reign onwards figured as the capital of northern India, and its sovereign claimed the imperial power as by right.

Kāshmir, where Hsuan-tsang had received a magnificent welcome, owed to its position of mountainous isolation a remarkable historical continuity on the fringe of the conflicts rending Hindustan.

In Surāshtra, the kingdom of Valabhī was the domain of the Maitraka dynasty, who were vassals to Harsha, and at one time probably aspired briefly to succeed the great Buddhist sovereign.

Bengāl, future domain of the Pālas and later of the Senas, went into eclipse after the defeat of Śaśāṅka. It was certainly divided up, and the Guptas who were reigning in Magadha held sizeable fiefs there.

Finally, the whole of the region between the Indus and the Ganges north of the Vindhya hills was the province henceforth of the Rājput clans. The name 'rāja-putra' signifies 'son of kings'; but were they the descendants of the kshatriyas, of the Scythians or of other later arrivals in India? Blood of mixed origins doubtless flowed in their veins, but they were completely Indianized, and the source of their unity resided in a common heritage of kshatriya traditions, interpreted and adapted, of course, to their circumstances.

In Kanauj itself, on Harsha's death, a minister or tributary sovereign had seized power. The ambassador Wang Hiuen-tse, sent to Harsha by the Emperor T'ai-tsung, arrived in Kanauj in 647, a few months after the death of the sovereign, only to be attacked by the usurper. Wang Hiuen-tse thereupon led a punitive expedition against the over-bold Indian princeling, with the aid of the king of Nepāl and Srong-bcan Sgam-po, king of Tibet, and took him back as a prisoner to China. His statue took its place with those of other vanquished princes which lined the entry to T'ai-tsung's mausoleum.

This episode, which has been handed down in a Chinese text, is clear as the expression of the political decomposition of India; it is also instructive in regard to the diplomatic relations then being established between the two great powers of eastern and southern Asia. Mention is made in the account of two states on the north-eastern Indian frontier, Nepāl and Tibet.

Nepāl, which had given India the prince who became the Buddha, was, like its counterpart in the western Himalayas, a centre of literature and art,

though on a lesser scale. In the early seventh century, in the time of Harsha, its ruler was Arṁsuvarman, who also enjoyed a reputation as a scholar.

As for the Tibetan plateau, semi-desert and with a population of rude shepherds, they had so far known no political organization at all. Then, at the beginning of the seventh century, a Tibetan of genius succeeded in organizing the scattered population and in turning it into a nation, imposing on it a summary culture, a civilization compounded of elements from India and China. This double influence in Srong-bcan Sgam-po can be traced to his two marriages—with a daughter of Arṁsuvarman and with a T'ang princess. The two princesses, Nepalese and Chinese, introduced into Tibet the essentials of their respective civilizations and, in particular, Buddhism, of which both were fervent adherents. In gratitude the people deified them both; they are still worshipped as two incarnations of the salvational power, the Tārā, a feminine form of Bodhisattva: as the Green Tārā and the White Tārā.

Shortly after the interlude of Wang Hiu-en-tse, which had put the seal on the temporary eclipse of Kanauj, the most powerful ruler in Hindustan was again a Gupta, Ādityasenagupta. In Magadha, Guptas had continued in power. After a conflict with the Maukhari, the Guptas profited by the defeat of Śaśāṅka to enrich themselves at the expense of Bengāl. Accepting the suzerainty of Harsha, they had a brief period of glory, and may perhaps have dreamed of restoring the empire of their ancestors. Ādityasenagupta took the titles of Supreme Lord, Great King of Kings and performed the old Vedic horse-sacrifice. From a curious document which still survives it would appear that he had a vassal on the border of Burma, an indication of the complexity of the political links that could unite distant provinces with the metropolitan cities of India. This king had also apparently built a convent at Gayā to house monks from the south when they were on pilgrimage, and, according to the Chinese pilgrim I-tsing, his son proposed to put a convent at the disposal of Chinese monks. Up to the time of the conquests of Yaśovarman of Kanauj, the successors of this Gupta ruled over a quite extensive territory, comprising not only Magadha, but part of Mālwa and part of Bengāl as well.

Yaśovarman was not only a successful warrior. He was also a protector of arts and letters, becoming the patron of the playwright and poet Bhavabhūti, well-known through the Prākṛit epic of his protégé Vākpatirāja. He first came on the scene in about 730, when he attacked the king of Bengāl and Magadha. This king may well have been the same Gupta who had returned victorious to Kanauj, but was subsequently dethroned by the king of Kāshmir, Mukṭāpīda Lalitāditya.

Kāshmir, shielded by its geographical situation from the vicissitudes of northern India, played a leading rôle throughout the medieval period. It was the most brilliant centre of Sanskrit culture, and was in contact also over the high passes with Chinese Turkestan. Direct exchanges, dating from an early epoch, continued between these two countries, despite the upheavals in central Asia. Kāshmiri influence in the Khotan region made itself felt particularly

artistically, in a manner traceable alike in sculpture and in the frescoes of Dandan Uilik. The Kāshmiri sovereigns, threatened by Tibetan turbulence, sought and obtained an alliance with China. For this reason, they recognized T'ang suzerainty if only theoretically. Lalitāditya, the vanquisher of Yaśovarman of Kanauj, had also to beat off attacks by Tibetans and Turks, but his activities were not limited to military exploits; he founded many temples, among them the famous Temple of the Sun at Mārtāṇḍa.

Lalitāditya's grandson repeated the exploits of his grandfather, but also found time to act as protector to many scholars. He may have reached Nepāl and Bengāl; at all events it is certain that he overthrew the sovereign of Kanauj, whose throne he carried back symbolically to Kāshmir.

On the whole, these wars so far had been no more than expeditions designed to satisfy personal ambitions, and scarcely troubled the established order. Kanauj, for instance, had figured simply as the most prized objective of such ventures. The next sovereign in Kanauj was dethroned in his turn a little before 800, his adversary being the king of Bengāl. This time, however, greater significance was attached to the event. The Pāla dynasty had in the meantime restored Bengal to political importance, and the Pratihāra dynasty imposed its authority over the greater part of Rājasthān. This was the clash of two simultaneously rising dynasties, with Kanauj the highly prized stake in the game.

The Blossoming of the Deccan States

In the Deccan the struggle continued between the successors of Narasimhavarman and of Pulakesin II, that is to say, between the Pallavas on the one hand, and the Kannada and Marāṭhā empires on the other. The Chālukyas occupied Kāñchī in the seventh century 'having vanquished', says an inscription, 'the king of Pallava who had humiliated and destroyed his family'. The wars continued through succeeding reigns, but the temples (founded sometimes to mark a victory) survived, some at Paṭṭadakal and others at the Pallava capitals, Māvalipuram and Kāñchī. The Chālukya king, conqueror of Kāñchī in 673, not content with merely respecting the artistic treasures of the conquered town, made offerings to the temples and distributed alms. The conflicts of sovereigns prevented neither the blossoming of magnificent schools of art, nor philosophic emulation, nor the development of the Tamil lyric and, at the Chālukya court, Sanskrit literature. Cultural life went on, apparently unaffected by wars that involved the sovereigns and their armies only, not the people as a whole.

When (c. 570) the Jain dynasty of the Rāshtrakūṭas dispossessed the Chālukyas of power, the situation changed little, save that the Rāshtrakūṭas also tried to extend their domination northwards in the direction of Gujarāt and Mālwa. The second of the imperial Rāshtrakūṭas (seventh in the dynastic list) consolidated the dynasty's position. He was the founder of the Kailās-anātha Temple of Ellorā. The greatest conqueror of the dynasty led his armies as far as Kāshmir, occupied Mālwa and part of Gujarāt, and defeated the

Pallava king of Kāñchī. He crossed the states of the Kanauj king without effectively damaging the power of the Pratihāras by this military progress. The next sovereign moved the capital, established by his predecessors at Nāsik, to Mānyakheta, or Malkhed, which was better placed for the prosecution of the struggle with the Chālukya of Veñgī. At about this time, an Arab work, traditionally attributed to the merchant Suleyman (mid-ninth century), ranked the Rāshtrakūṭa sovereign, under his surname of Vallabharāja, with the caliph, the emperor of China, and the basileus of Byzantium.

Northern India, the Pratihāras and the Pālas

A rivalry, somewhat analogous to that of the Tamil and Kannada empires in the Deccan, existed in Hindustan between the Pālas of Bengāl and the Gurjara clan of the Pratihāras. The Gurjaras were probably nomads who had made their way into India at about the same time as the Ephthalites. Gurjara clans had already established themselves during the Harsha period at Mandor, at Broach and at Bhilmal. At Bhilmal the protector of the astronomer Brahmagupta was a Gurjara. A little later the Chāpas, the founders of Anhilwāra, made their appearance, to be followed in Mālwa and in the south-east of Rājputāṇa by a fifth clan, the Pratihāras. The Pratihāras were typical Rājputs, perhaps of foreign origin but completely Indianized, who created a temporary empire, fostered art and letters and were not themselves averse to writing a treatise or a poem in between their war-making.

At first Pratihāras affirmed their power at the expense of their Gurjara neighbours, and from the reign of Vatsarāja, aspired to imperial power, not without coming into conflict with the sovereigns of Bengāl and the Mahārāshtra.

Bengāl was not then unified, but Vatsarāja affronted both the king of Gauḍa (west Bengāl) and the king of Vañga (central and eastern Bengāl). The king of Vañga was probably Gopāla I, the first known Pāla (c. 766), and the founder of the University of Odantapurī. In the succeeding reigns of the Pratihāra Nāgabhaṭa II (800–32) and the Pāla Dharmapāla (c. 770–815) the struggle for dominion was finally fought out.

Dharmapāla overthrew the sovereign of Kanauj, who was the second successor to Yaśovarman, and set one of his protégés, Chakrāyudha, in his place. Dharmapāla's hegemony extended over the whole of Bengāl, Magadha, Kanauj and part of Orissa. He was also a founder of monasteries, and the commencement of the flowering of Pāla art (painting and sculpture out of stone and bronze) dates from his reign. If his achievement had been a lasting one, a new lease of life for Buddhism in India might well have followed.

But the Pratihāra Nāgabhaṭa was a Hindu—more specifically, a votary of Bhagavatī. He seized Kanauj one year after Dharmapāla's death and made it his capital.

Pālas ambitions were thus limited to the west, but this was far from putting a final check to their power. Dharmapāla's nephew (first half of the ninth

century) enlarged his dominion to take in Assam and Orissa. From one very interesting document there emerges also information about the relations that the Pāla maintained with Sumatra and the Śailendra dynasty.

At Kanauj, the second successor to Nāgabhaṭa II was the finest ornament of the Pratihāra dynasty. Mihira Bhoja (843–70) reigned for half a century in imperial splendour and suffered only one reverse, the defeat inflicted on him by the king of Kāshmir. His kingdom extended from Banāras (Vārāṇasi) to Kāthiāwār, and from the eastern Punjab to Mālwa. He snatched Magadha from the Pālas, who recovered it only at the beginning of the tenth century. Only the Narmadā separated his states from those of the Rāshtrakūṭas.

The Pratihāras maintained their pre-eminence through the succeeding reigns, in particular through that of Mahendrapāla, patron of the dramatist Rājasekhara. Soon, however, a gradual decline of both dynasties began.

India on the Eve of the Ghaznavid Invasion

In the tenth century a series of events produced a complete change in the situation, not only in northern India, but also in the Deccan: the weakening of the Pratihāra and Pāla dynasties, the rise of the Paramāras, the disappearance of the Rāshtrakūṭas, and, at the close of the century, Ghaznavid invasions and the establishment in the Tamil country of Chōla power, in succession to the Pallavas.

In the reign of Mahipāla (c. 988–1038), the Pratihāra dynasty was severely shaken by attacks by the Rāshtrakūṭa Indra III, which were, however, beaten off with the aid of the king of the Chandellas. Then several Pratihāra vassals proclaimed their independence. In Kāthiāwār, in about 970, the Chāpas, who remained faithful to the Pratihāras, were dethroned by the Solānkis, and their territory was henceforth lost to Kanauj authority. Not long afterwards, in about 977, Gwālior was the scene of the founding of a new dynasty, the Kachchapaghāta, who were perhaps at first vassals to the Chandellas, who themselves had made their appearance in the Bundelkhand in the ninth century. Finally, about the middle of the tenth century, an independent Rājput clan, established itself at Dhārā, in the Mālwa—the Paramāra which gave India two great kings, Muñja at the end of the ninth century, and Bhoja in the tenth.

The middle of the tenth century was for the Pālas in Bengāl, as for the Pratihāras, a difficult period. The Kāmbojas mountain people overran part of Bengāl, to be driven out again by Mahipāla in about 980.

In the Deccan, the Rāshtrakūṭas, who were established in Malkhed, were exhausting themselves in struggles against the eastern Chālukyas. The princes of Veṅgī, 774 to the end of the thirteenth century, were, indeed, perpetually at war, now with their northern neighbours, the Gaṅgas of Kaliṅga, now with those to the south, the Pallavas and the Chōlas, now with those to the west, the Rāshtrakūṭas. Theirs was an important part in the complex interplay of alliances which, in spite of the feudal confusion, gave shape to the political

history of the Deccan at this period. The reigns of Mihira Bhoja in Kanauj (843-70) and of Amoghavarman I in Malkhed (817-77) coincided with the rule in Veṅgī of Vijayāditya III (844-88), who inflicted defeats on the allies of the Rāshtrakūṭas: the Gaṅgas of Mysore, the Gaṅgas of Kālīṅga, the Pallavas, weakened already by the triumphs of the Rāshtrakūṭa Govinda III and the ventures of the Pāṇḍyas and on the Pāṇḍyas themselves, who were trying to gain control of the Tamil country from the Pallavas and the Chōlas. He finally invaded Rāshtrakūṭa territory, despite their alliance with the Kalachuris.

This house of Kalachuris, which made its appearance in the Jabbalpur district in the middle of the ninth century, ruled over Chedi, and was, throughout this period a staunch ally of the Rāshtrakūṭas. Thanks to this support, the next of this dynasty, Krishnārāja II (c. 877-911), was able, in his turn, to take possession of Veṅgī. His grandson (914-6) made a military progress through the Pratihāra states, but the hour of glory of the Rāshtrakūṭa dynasty was nevertheless over.

In the Tamil country, Pallava power also progressively declined. And so these two powers, Pallava and Rāshtrakūṭa, each in danger, both enfeebled from fighting against each other, from being enemies became allies. The Gaṅgas had been trying for some time to shake off Pallava suzerainty; but independence was something they were to enjoy at infrequent intervals. For most of the time they were destined to be vassals to the Pallavas or to the Chōlas and after these to the Hoysalas. The Pāṇḍyas, in the extreme south of the Tamil country, had, at the beginning of the ninth century, attempted to impose their authority on the Pallavas and on the Chōlas. At the end of the same century, the Chōlas succeeded in establishing themselves, to their great advantage, as an imperial power. From then on, the Pallavas were no longer anything more than local princes under Chōla suzerainty, in different Telugu or Tamil districts.

Shortly before 850, the Chōlas had escaped from Pallava rule only to come under the sovereignty of the Pāṇḍyas. By taking advantage of this rivalry between their neighbours of north and south, the Chōlas seized their opportunity to establish their independence. Āditya I (c. 870-905), embarked on the conquest of Pallava territory, killed the Pallava sovereign, and established his dynasty at Kāñchī. His son (c. 906-53) took possession of Madurā, and defeated the king of Ceylon and the Gaṅgas of Mysore, the allies of the Rāshtrakūṭas. But the Rāshtrakūṭa Krishna III (c. 949) drove the Chōlas from the northern Tamil country with the aid of his brother-in-law, the Gaṅga king, leaving them only the districts of Tanjore and Trichinopoly. Thus were Chōla ambitions for the time being contained.

Establishment of Chōla power was evidently made possible only through the troubles that weakened the powerful Marāṭhā and Kannada states. The years 965-73 were cruel ones for the Rāshtrakūṭas. Shortly before 970, the Chōlas reoccupied the northern Tamil country, and a few years later, in 973, a Chalukya, Taila II, overthrew the last but one of the Rāshtrakūṭas. He

founded a new Chālukya dynasty, which continued to rule in Malkhed, before setting up its capital in Kalyāṇi.

Taila II waged war with both the Chōlas and the Paramāra Muñja, sovereign of Mālwa, over whom, after a series of reverses, he eventually triumphed. Muñja is a strange figure; war-maker and poet, but a man of tragic destiny. Merutuṅga tells his long tragic story. Impelled by his warlike temperament, Muñja conducted several campaigns in Marāṭhā country. In these he was twice the victor, but was eventually defeated and taken prisoner by Taila II. While in captivity, he became the lover of the sister of the Chālukya king. In the end she betrayed him and he was decapitated. Taila, says the poet Merutuṅga, 'assuaged his fury by continually pouring sour milk over the defeated one's head'.

Taila II next attacked the Gaṅgas of Mysore, who were destined also to lose their independence. Most unwisely, he made himself the ally of the Chōlas in this enterprise. Between 999 and 1004, the Chōla Rājarāja brought Mysore into subjection. He annexed the southern Tamil country, took possession of Veṅgī and the Kaliṅga, and finally attacked Ceylon and the Chālukyas. But the Marāṭhā state had not the strength to check the ebullient Chōla. About 1005, an army of 900,000 men, led by Rājarāja, invaded the territory of Taila, pillaging and massacring as it went.

These ventures, which Rājendra I continued on a still more grandiose scale, opened a new phase in the history of the Deccan. The Tamil fleet went as far as south-east Asia, where outside the Chōla influence, there existed, at the beginning of the eleventh century, three great sovereigns; Sūryavarman I in Cambodia, Airlaṅga in Java and Anōratha in Burma. Their reigns coincided with events of a more tragic significance for Indian culture, events which culminated in the establishment of a dynasty, both Turkish and Moslem, on Indian soil.

The Ghaznavid Invasion

The earliest Arab incursions on the Surāshtra coast, which occurred soon after the conquest of the Baluchi Makran in 645 had scarcely had a political and cultural significance. In 712, however, troops of the caliph Walid had taken possession of Sind, and then, moving northward, had taken and sacked Multān, though failing to advance any further into the Punjab. This first invasion into India proper passed almost unnoticed. But it was the first phase in the inexorable advance of Islam into India, and, from the cultural point of view, it was the establishment of the first contacts between Arab and Indian civilizations which were often fruitful, despite the tyranny of the conquerors. During the caliphates of Mansūr and Harun, Indian science was introduced to Baghdad, and gradually the Arabs discovered the art, and then the literature and philosophy of India.

Yet the Arab occupation extended only over a sparsely populated, partly desert province. It was left to some Islamized Turks, who had become inde-

pendent after the fall of the caliphate, to carry the conquest further. The kingdom of Ghazni, in the Afghan mountains, had been founded by a Turkish slave, Alptigin, who was succeeded by another slave, Sabuktigin. The little Ghaznavid state directly threatened the Punjab, and the rāja of Lahore, Jayapāla, thought it best to take the offensive before his dangerous neighbour had time to become powerfully organized.

Jayapāla belonged to the dynasty of the Brāhmaṇa Shāhiya, which, in about 885, had replaced in Kābul and Gandhāra the Turkish dynasty of the Shāhi, which had been established in the region after the defeat of the Huns. Jayapāla controlled, as well as Gandhāra, a great part of the Punjab. Defeated by Sabuktigin in 986-7, and again in 991, he had to abandon his Gandhāra fief and take refuge in the eastern Punjab, near Patialā. Here he organized resistance to the invader, grouping round him several Indian princes, including King Chandella and Chāhumāna of Ajmer, and launched an attack in 1001. But he was defeated near Peshāwār by Mahmūd, son of Sabuktigin, who had succeeded his father four years previously, and he committed suicide. His son, Anandapāla, and his grandson strove in vain to continue the fight and in 1021 the Punjab came completely under Ghaznavid sway.

Kāshmir also took part in the struggle against Mahmūd. Saṅgrāmarāja, of the Lohara dynasty put an army at the disposal of Jayapāla's grandson. But the defeat of Jayapāla and his descendants did not directly affect the rich Himalayan valley, and, behind its mountain screen, it remained one of the most brilliant centres of Sanskrit culture.

The house of Kanauj, on the other hand, had been dealt its death-blow. The Pratihāras, alive to the danger that threatened all India, did not withhold aid from the Shāhi. The years 1018 and 1019 finally saw the sack of Mathurā and of Kanauj, so disastrous for the history of civilization. This was the end of the Pratihāra dynasty.

The Chandella princes of Kālīñjara, and Kachchapaghāta of Gwālior, took advantage of the confused situation to lead an expedition against Kanauj, while the grandfather and father of the Chandella, in revolt against Rājyapāla, had loyally joined forces with the Pratihāras against the Ghaznavids. But in 1023 it was the turn of the capital Kālīñjara to be sacked by Mahmūd, and with this came the decline of the dynasty after a long period, the brilliance of which is commemorated in the temples of the holy city of Khajurāho. The Chandellas came under the suzerainty of the Kalachuris of Chedi, who had profited by the Moslem invasion and the attendant disorders to extend their power, even occupying Prayāga.

Mahmūd had made seventeen deep incursions into the Indian interior in twenty-six years, and the last raid, on Somnāth in 1026, was perhaps the cruellest of all. The temple was razed to the ground and Indians massacred by the thousand.

Mahmūd, however, was concerned more with the enjoyment of the fruits of his victories than with the organization of the lands he conquered. He

reigned in splendour, as one passionately devoted to culture. He made of Ghazni an intellectual and artistic focal point, and could select as recipients of his favour men as exceptional as Al Biruni and Firdusi. Northern India was much more severely shaken at his death in 1030 than it had been by the Hun invasions. This time, the invader had gained a foothold in the Punjab, and that part of India was to serve, two centuries later, as the launching-point for further expeditions of conquest.

There was no prospect, moreover, of these invaders becoming assimilated. They had a culture of their own, and a religion so intransigent as to rule out all possibility of syncretism. The sufferings undergone at the hands of this brilliant Maecenas were but the preface to a long chapter of adversity.

Nevertheless, when the turmoil was over, India pursued its life of brilliance, luxury, and refinement, although Indian states continued to rend each other as in the past, indifferent, apparently, to the peril that threatened them, and to which they had already almost succumbed.

B. Indo-China and Indonesia

From Fu-nan to Chen-la

Throughout the fifth century and for the first half of the sixth, Fu-nan, on the lower Mekong, was the most important political power in south-east Asia. It collapsed about 550, after five centuries of prosperity, while in the middle reaches of the Mekong one of its former vassals, the Chen-la, cast off its authority and enlarged itself at the expense of its former overlord. This was the work of two sovereigns, Bhavavarman, and Isānavarman I, the last known to have ruled in 616 and 626 and the founder of the town of Isānapura, on the site of which Sambor Prei Kuk now stands.

Chen-la power began to wane in the second half of the seventh century—almost precisely as the new kingdom of Śrīvijaya was emerging in Malaya and Sumatra. Śrīvijaya owes its rise first and foremost to economic factors, but it was also a centre of Buddhist culture, in close touch with Bengāl.

At the beginning of the eighth century, the old Fu-nan freed itself from the control of Chen-la by taking advantage of dynastic troubles there. The country was divided into what became known as Land Chen-la (the former Chen-la) and Water Chen-la (the former Fu-nan). Cambodia declined in importance up to the beginning of the ninth century.

The Predominance of the Sailendras

The causes of the rise of the state of Śrīvijaya are perhaps to be traced to a new, essentially Buddhist, trend in Indianization. This trend had its roots in the persecutions suffered by the Buddhists in India, in the first instance at the hands of the Huns but later under Śaśāṅka, the king of Bengāl who was defeated by Harsha.

The new kingdom had its centre in south-east Sumatra at Palembang. Its

situation made it an economic clearing-house, since it controlled the straits of Sunda and Malacca, and it was also an important cultural mediating point: one can cite, for instance, the Chinese pilgrim I-tsing, who went to live there at the end of the seventh century to translate Buddhist texts into Chinese.

This situation guaranteed to it the control of commercial traffic and economic dominance until the day when its Javanese vassals on the one hand and the Chōla maritime supremacy on the other put an end to this power.

About the year 775 the kingdom of Śrīvijaya extended into the Ligor region of Malaya. But it is Java, rich and well-populated, that is the focus of attention from 732, the date at which an inscription refers to King Sañjaya. Sañjaya was apparently a prince of central Java, of the Śailendra dynasty. This dynasty, which its name 'Indra [i.e. King] of the Mountain' connects with the Indonesian and Fu-nan cultural complex, ruled until the ninth century. It is from the Śailendra period (the eighth century) that the monuments of central Java date, especially the Borobudur. Other central Javan monuments, more to the north on the Dieng plateau, bear witness to the withdrawal of Hindu elements into this part of the island. Sañjaya was a Śaivite, but his successor was converted to Buddhism.

There is no definite evidence that Java and Palembang were at this period under one rule. The presence of the Śailendra is not attested in Sumatra before the tenth century, and their probable origins were Javanese. Sañjaya, on the other hand appears, according to a late text, to have been a great conqueror, and it may well be that this legend embodies a considerable amount of truth. In particular, Java may have exercised a certain authority over Cambodia in the eighth century. At all events, the Great Vehicle made its appearance at this time in Cambodia, divided then into a great number of principalities, and the faith may well have come from Java.

The eighth century thus saw the decline of certain states—for example, Cambodia, and the Pyu kingdom, shaken severely by the formation of that Thai kingdom of Nan-chao—which was balanced by the emergence of two new powers whose affiliations are still uncertain even today: the kingdom of Śrīvijaya and the dynasty of the Śailendra.

In the same period, the brilliant impact of the Buddhism of the Great Vehicle was felt in both Indo-China and Indonesia, doubtless through the influence of the University of Nālandā.

Khmer hegemony

The beginning of the ninth century brought a further shift of power, preponderance passing once again to Cambodia. A sovereign whose ties with his predecessors were tenuous, Jayavarman II, at a time when he was wandering from capital to capital, embraced the task of re-establishing the unity and independence of Cambodia. He came from Java, where perhaps he had been held as a hostage, and in 802 founded the town of Mahendraparvata on the Phnom Kulēn, north of Angkor.

He established the ritual of the god-king, Liṅga, in which resided the royal power of the Khmer kings, who were once again independent of Java. The beginnings of the kingdom of Angkor can be traced to him, since it was he who was responsible for the choice of the site of Hariharālaya (Roluos) north of the great lake. Here he reigned twice before founding Mahendraparvata, and again at the end of his life; and, at but a short distance from this spot, his great-nephew founded the town of Angkor.

In Java, the power of the Śailendra waned in the course of the ninth century: they retired within the Sumatra kingdom of Śrīvijaya, while the émigré Śaivite dynasty returned to power in central Java. In Burma, Nan-chao, under Chinese rule, continued to exercise suzerainty over upper Burma. The Pyu people were deported to form what is now Yun-nan-fu. The first capital was replaced by two new cities, Pagan, at the confluence of the Irawadi and the Chindwin, and Pegu.

The reign of Jayavarman II ushered in an era of prosperity and grandeur for Cambodia. The Khmer empire stretched from Burma to Champa, and from the Gulf of Siam to Nan-chao. Mention must be made of at least one of the Khmer sovereigns—Yaśovarman, the founder of Yaśodharapura (or Angkor)—but we need not cite many reigns since this is the period of the Pax Khmer. The Khmer sovereigns were above all great builders. At their instigation, pools were dug, roads built, dynastic temples raised—some of these to the memory of deified ancestors, others to house the Liṅga, receptacle of the royal power. The first capital to be enriched by the works of many sovereigns was Hariharālaya—today Roluos—Jayavarman II's seat at the end of his life. Indravarman I had a pool dug there and built two temples, Praho in 878, and Bakong the first great Khmer mountain-temple in 881. Yaśovarman I (889–910), having founded a city at Roluos (Lolei), went on to build at a short distance from that town a new capital. Named after its founder as Yaśodharapura, this became Angkor, where Khmer sovereigns reigned in almost unbroken succession. The centre of Yaśovarman's city is marked by the Phnom Bakheng, standing outside the present wall, which dates from the end of the twelfth century. Another capital, Koh-ker, founded in north-east Cambodia by Jayavarman IV (928–42), was soon abandoned in favour of Angkor, where Rājendravarman erected the eastern Mebon (952) and Pre Rup (965). Jayavarman V, in whose reign the marvellous little temple of Banteay Srei was built, added further to the Angkor picture with Taео, Phimeanakas and the royal palace.

The official religion remained state Śaivism. The protector god of the kingdom was Śiva, whose seat was the royal Liṅga, where he identified himself with the subtle self of the king. Other religions persisted, however, and the Khmer kings displayed the greatest tolerance. Indeed, Yaśovarman founded three convents, obeying the same general rules, but intended for the use of Śaivites, Vaiṣṇavites, and Buddhists respectively.

At the beginning of the eleventh century the most important power in south-

east Asia was Cambodia. Then in full process of expansion, while the Śrīvijaya were passing through a phase of decline, the Khmer empire not only controlled Cambodia, the lower Mekong, and south Laos, but also wielded considerable influence in Dvāravatī on the lower Menam, imposed by a social and cultural aristocracy. The old Sumatranese kingdom, the economic and cultural meeting-place of metropolitan India, Indo-China and Indonesia, crumbled, and at the same time Islam began to gain a footing in Sumatra. Cambodia in this period, well known to modern scholars from the description given by the Chinese, Chou Ta-kuan, was still in full splendour, yet its history was finished. In Champa, Jaya Simhavarman IV, who ascended the throne in about 1280, was a great sovereign who once again repulsed the Mongol incursions; but once he was gone, Champa became, for a time, simply a province of Dai-Viet. So Champa lived on, an unhappy state, whose life was under constant threat, yet possessing a disturbing vitality which persisted into the eighteenth century. In Java, Hindu civilization endured at Modjopahit in the east of the island up to the tenth century, but withdrew to Bali when Java was invaded by Islam. Henceforward, it was the Thais who were politically predominant, and at the end of the thirteenth century a great king, Rāma K'amhēng, was reigning in Sukhotai. Sinhalese Buddhism, implanted in Burma, became the religion of the Thais, and gradually ousted all other religions from Thailand, Cambodia and Laos. It assured the permanence of one form at least of the Indian spirit in this south-east sector of Asia, which welcomed the religion of the Blessed One, the original driving force behind Indian expansion at the moment when it was eliminated from India proper by the hostile forces of Hinduism and Islam.

3. THE ARABS AND ISLAM

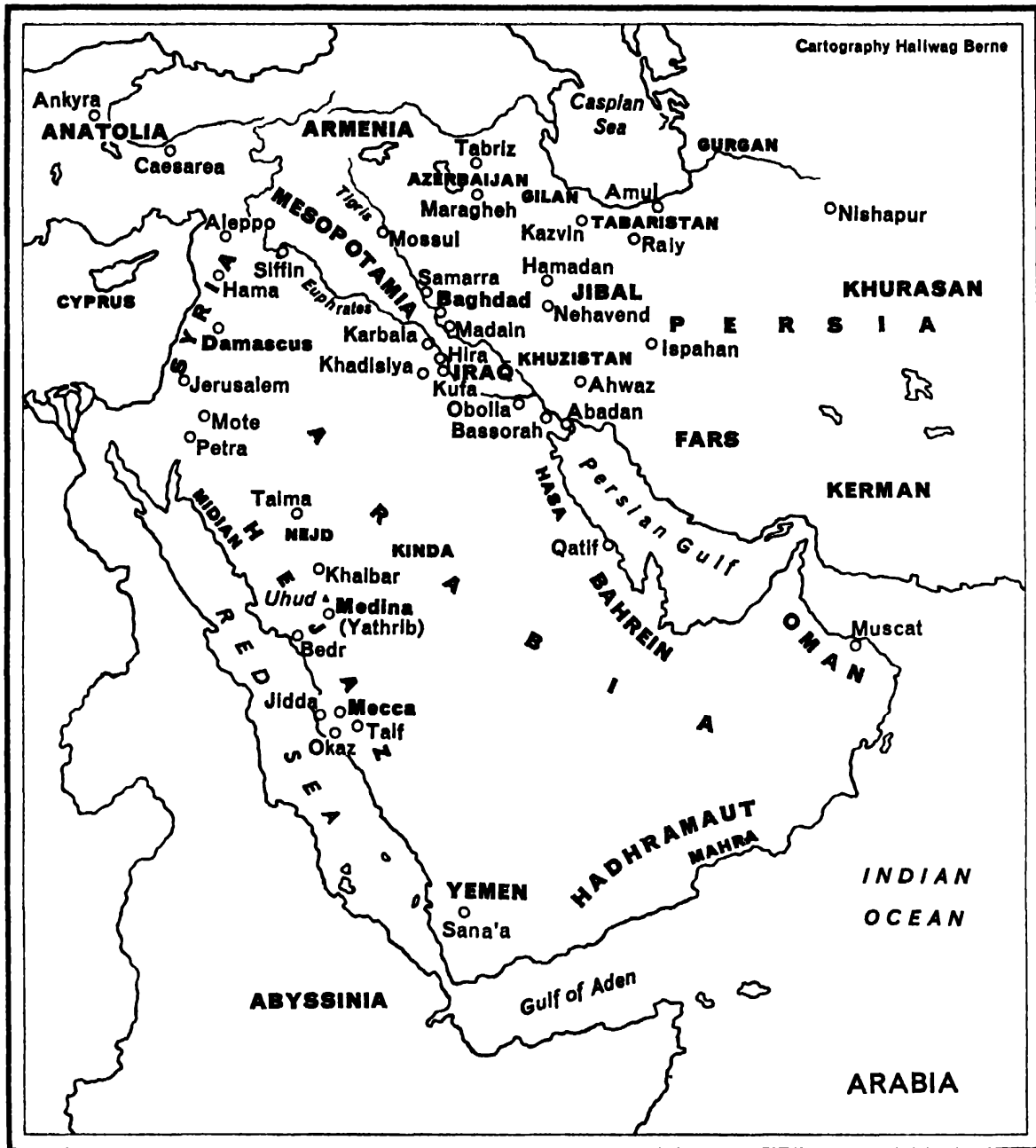
A. The Rise of Islam

In the first years of the seventh century the inhabitants of two obscure townships in Arabia were shaken by the eloquence of a man who had himself risen from obscurity. In the communication of Mohammed his contemporaries caught the note of a divine revelation, and his sermons, preached over almost twenty years, represent the greatest religious event in Asia since the proclamation of the Nicene creed. Its consequences were incalculable; for it was partly as a result of the exaltation induced by the Arabs' new faith that, before the century was half spent, they had embarked on a programme of world conquest which was to become one of the mightiest epics of human history.

The Home of Islam

Islam was born in Arabia, in the Hedjaz, where stands the Ka'ba of Mecca, the Temple of God, the place of pilgrimage for the world's host of Moslems, whose journey takes them also to the tomb of the Prophet at Medina. By Arabia we mean the vast quadrilateral bounded by the Syrian desert, the

Persian Gulf, the Indian Ocean and the Red Sea. If Arabic descriptions are to be trusted it was a peninsula, which, until the advent of Islam, had been plunged in barbarian darkness. We should think of it, however, as 'dark' only in a



MAP IX

religious sense, ignorance being considered the attribute of a population not yet reached by the divine message of Islam. (Map IX.)

The very success achieved by the preachers of the Koran testifies in itself to the brilliance of this pre-Islamic civilization. Alike in his early supporters and in his most implacable opponents, Mohammed had to deal with an élite,

capable of grasping his concepts, rising to his aspirations, and responding, above all, to the charm and lyric beauty of the fine, ringing prose of the Koran.

It was a civilization varying in degree, naturally, in its different aspects. At the time when the founder of Islam was beginning his work, the peoples inhabiting Arabia were all of Arab blood, but with quite considerable social, political and religious differences.

The Bedouins. The greater part of the population, which cannot have been very large, was made up of Bedouin tribes, about whom we can glean much from the studies that have been made of the present-day nomads of the area. Arabia was indeed the scene of the activities, as it is today, of 'the great nomadic camel-men, who move with their animals with the seasons in a wide radius from a fixed axis: the small sheep-keeping nomads often only practising transhumance; and nomads, lastly, who are in process of settling down'. The staple diet of the country was camel's milk; tents and clothing were made from camel hair, leather harness from the camel's skin, tools from the camel's bones, and the camel's dung, when thoroughly dried, served as the Arab's rather poor fuel. The hardness of these nomads' lives it is scarcely necessary to emphasize; it was a constant searching after pasture and water in a hostile terrain.

This tribal society could certainly not be described as a peaceable one; but it was also true that there were 'truces of God' to temper the winds of bellicosity. The tribes lived voluntarily by a certain code of honour in which vendetta was accepted as a corrective to brutality. Evidence is not lacking in the Bedouin community of gratitude and assistance, and there is about them an innate love of ceremony and ostentation, a characteristic which imparts to their society a colour all its own. Mohammed attempted to end the pitiable conditions among the nomads, where pillage was common, where murder gave rise to the wreaking of remorseless vengeance and where anarchy was the normal state of affairs, by establishing, under the aegis of a religious law, an embryonic legal system which only the strongest chiefs were capable of enforcing. This spelt the end of vendetta within the clan; Mohammed replaced it by a new alliance and a new law. Religion was to take the place of personal vengeance and the arbitration of an expert was to be replaced by a justice administered in the name of the community.

Some tribes had abandoned their nomadic way of life to settle in urban centres. These city-dwellers enjoyed an easier standard of living. Some of the more advanced, the Kuraish of Mecca for example, were merchants or courtiers. With the passage of time they had acquired a rare spirit of initiative and remarkable professional competence. The prosperity of these business circles was proverbial, and nothing was more firmly established than the reputation these Meccan traders had of being wealthy. Their greed for profit provoked the sarcasm and irony of the cultivators of land—also sedentary people among whom were exploiters, mainly Jews, of the flourishing palm plantations around Mecca.

But these city-dwellers, merchants, financiers, or cultivators, were a small minority, scarcely 20 per cent of the total population. Certain of the Bedouins had taken to stock-rearing, and others to the convoying of commercial caravans, an occupation doubtless more lucrative, but beset with dangers. Nomadic or sedentary, these Arabs were the inferiors of their neighbours, whose influence, thanks to the geographical situation of their country, cut off as they were from outside contacts by sea or desert, they never felt. The necessity for trade had, it is true, led them to break out from the confines of their almost unproductive land, soul-destroying in its sterility, and forcing them to import most of their essential provisions—wine, oil and, above all, corn. Bread was thus a choice food and cheese a luxury item, for both had to be brought from outside; of the staple fare, only dates were home-produced. Trade with the Arabs was carried on by the Christians of Syria and Palestine and was monopolized in Arabia by the inhabitants of Medina and Mecca.

Arabia itself had little to export—only resin and tars—and it derived its purchasing power, which was considerable, from its inhabitants' activities as middlemen and brokers. The Arab occupied a favourable position on the trade route for spices and handled the transport of these to Byzantium. But, unlike the spices, some merchandise was not being re-exported: arms, perfumes, scented woods, jewels, rich textiles, ivory and slaves. Industries are known to have been few: confined to the production of elementary articles necessary for a nomadic people. Craftsmanship was confined to the ranks of slaves and freedmen, among them at this period, Abyssinians, Greeks, Persians and Copts. This state of affairs prevailed in Arabia for a long time.

Hira and Ghassan. A factor not without its importance in the history of Moslem civilization was that alongside the anarchy of the tribes there existed in the north, in the north-east and in the centre of the peninsula, more ordered states, and that development of two of these took place under the protectorates of Byzantium and Persia respectively. The kingdom of Hira, the land of the Lakhmids, on the Mesopotamian frontier, was under Sassanid domination. Like Persia, the Byzantine empire controlled an Arab principality, Ghassan, which, like its Mesopotamian rival, became involved in the great Greco-Iranian conflict. The tribes under the Ghassanid princes played an important part in the Arab conquest. They were converted to Islam, and, fully in their element in war, contributed to the prodigious success of the Arab armies. Finally, towards the end of the fifth century, there was an attempt at the unification of the tribes in the very centre of Arabia, in the kingdom of Kinda. This attempt, however, proved abortive under the attacks from the princes of Hira.

Mecca. The city of Mecca, in the sixth century, was the greatest centre of activity in Arabia. Through its temple, the Ka'ba, it had become the religious capital and commercially it had long since supplanted Petra. Mecca's lifeblood was trade, and the merchants formed a kind of aristocracy from among whom

the city leaders were drawn. The rest of the population were slaves who lived in the suburbs; they were the craftsmen and it was they who took the herds out to the patches of grass afforded by the desert.

Administration of the city was in the hands of the tribe of Kuraish, a tribe divided into a number of clans, among which the Umayya and the Hashim predominated. The Hashim were far from being the richest, but enjoyed the greatest respect. Less powerful than the Umayya, who controlled political and military appointments, their influence was immense. Hashimites held important offices in the temples, so that at times of pilgrimage they were always well to the fore.

Mohammed's Career

Into this family, the Hashim, Mohammed was born—in about 570, according to Moslem tradition. The main events of his life are well known, and discussion of him here will be confined to an attempt at an assessment of his personality.

The Prophet was bound, in the circumstances, to recruit his first followers from among the humble, for what he preached was the equality of all the newly converted, without regard to former differences of rank or property. His programme envisaged a union of all the tribes under the banner of purified religious thinking. A struggle now ensued between, on the one hand, the chauvinism of Mecca, anxious to preserve local custom and to perpetuate the city's political and economic hegemony, and, on the other, the more liberal patriotism of Mohammed. The Prophet soon grouped around him Arabs who were seeking to escape from the plutocratic tyranny of a clan.

He was born in Mecca, but was forced to leave his native town by the hostile attitude of the population, which still adhered to paganism; this was the *hijra*, from which we have the word 'hegira', which marked the beginning of the Islamic era (September, 662).

Able to bide his time, strengthened by faith in his mission and in the conviction that God's Will would prevail, the Prophet gave proof of a strength of will all the more effective for having its roots in an absolute sincerity. His personality stands out in powerful relief, in its wisdom, calm and serenity, overshadowing all his contemporaries—impassioned neophytes, zealous opportunists, and implacable enemies alike.

Mohammed used all possible means to intensify his propaganda outside Mecca. Numerous marriages, which provided a certain European critic with material for ill-considered jibes about the Prophet's sensuality, brought him support among families and tribes whom he wished to convert. The Koran revelation held the community in a continual state of alertness; it had the answer to all recriminations and discouragements; it provided a commentary on acts ill-interpreted; and it held out the promise of eternal happiness. The new religion, soon well defined, was superimposing itself on the older beliefs and becoming independent of them. Under divine inspiration, Mohammed

was attaching Islam to the two great revealed religions, and absorbing in it certain aspects of Arab paganism in claiming Abraham as the founder of the Ka'ba.

B. The Arab Conquests and the Umyyads

Abu Bakr and the Arab Progression

On Mohammed's death, one of his fathers-in-law, Abu Bakr, was acknowledged as head of the Moslem community, only to find, to his amazement, that the edifice was in danger of disintegration. Among the Bedouin there was an almost complete apostasy, a revolt that was drowned in blood. Both sides saw this civil war as a war of total destruction. The Moslems won, not without difficulty, and, to avoid a repetition of the trouble, Abu Bakr determined to direct these combative instincts outwards.

The Campaigns

The Arab surge came in two periods, divided by a period of internal dissension, centring particularly in the tumultuous reign of caliph Alî. The battle of Yarmuk (636) brought the submission of Palestine and Syria, after which came the invasion and conquest of Egypt (642).

The Persian campaign had opened in 634, the capital Madain being occupied three years later, following the battle of Khadisiya. The invasion pushed forward to the south, in Khuzistan, and penetrated into Fars and Jibal. Jibal was the scene of the decisive battle in 642, after which a section of the Arab army pushed on to Raiy, a suburb of what is now Teheran. The next year saw the start of local rebellions. But the Arab armies were not immobilized. On the one side they threatened Azerbaijan, whilst pressure on the other provinces was increased, though in the face of terrible difficulties. The minting of Arabo-Sassanid coins left no doubt of the conquerors' intentions.

The task was a taxing one, and it was not until 654 that the advance was pushed further: in that year, Seistan was reached and Herat taken. The next year, the luckless fugitive King Yazdgard was put to death near Merv. The taking of Balkh followed, and, not long after, the Arabs were in Kabul and Kandahar. In these regions, however, the Arabs had continual insurrections to deal with, and were obliged to re-subdue the countries they had already overrun. On the eastern frontier, the Turkish peoples presented no easy problem. The Arab armies nevertheless crossed the Oxus, passed Bukhara and Samarkand, and concluded a treaty with the population of Kharezm. This did not mean, however, that the countries were subdued, and Arab troops had always to be on the defensive. The battle of the Talas, in the upper Syr-darya basin, at which the Chinese were defeated in July 751, was fought after the fall of the Umayyads.

Advance in Mesopotamia. In another direction, the Arab armies, 'advancing up the valleys of the Tigris and Euphrates' made themselves masters of the whole

of Mesopotamia. In 639 they reached Rakka on the Euphrates; in 641 on the Tigris they took Mosul; after which, pushing into the Armenian mountains and on to beyond the Araxes, they captured the old city of Dovin, not far from the present Yerevan (October 642). Twenty years later, the Arabs were in control of a reunited Armenia. An Armenian-Arab agreement is worth referring to here, because it recalls Sassanid procedures: 'Armenia recognized Arab sovereignty and the Arabs guaranteed to protect the Monophysite faith against the intrusion of the Byzantine church.' Armenia was soon to have the distinction of being the sole vassal of the caliphate empire to retain a national monarchy, an unusual situation deserving of special notice.

The campaigns in Barbary. The Egyptian army won Tripolitania, but it was not until 670 that Tunisia was annexed and was given a Moslem capital, Qairawan. This rather slow advance was the best the Arabs could achieve in the face of most tenacious Berber resistance. The campaigns in Barbary, after the fairly easy defeat of the Byzantine contingents, were a different proposition from the conquest of Syria or Persia. In north Africa, the Arab armies were constantly harassed by the natives, who made ferocious attempts to stem the invasion. The Berber tribes in their mountain country had been a constant danger for Roman troops. Arab writers were well aware of this, asserting that the Berbers were a people in whom God had implanted turbulence and blind passion, a love of disorder and violence. Arab gains were constantly in jeopardy. Indeed, this advance into Barbary shows most clearly what a tremendous combination of prudence and audacity went in to the making of the Arab conquest.

At the beginning, the Arab troops did not press with much urgency against these indomitable Berbers whom they could not force immediately into submission. The new campaign commenced in 692, though its advance cannot be said to have been rapid; but all Barbary was in the hands of the Moslems by 710. However, Morocco, though part of north Africa, had a character of its own; its isolation, due to its mountain ranges, made it as little amenable to Arab invasion as it had been to Roman. Its situation opposite Spain led to a mingling of these two countries' history; its coastline led it to participate in Atlantic navigation; and its opening on to the Sahara gave it an influence in the Sudan that Algeria and Tunisia did not possess. The year 710 saw Morocco's entry into Islamic history: the army which invaded Spain was very largely made up of Moors. The Iberian peninsula may be regarded as having accepted the new Moslem domination in 714.

The Moors in Spain and France. Installed in Spain, the Islamic host continued their tactics, so successful in north Africa, of making raids on the grand scale. Indeed, the incursions into Gaul, however far north they reached, never really amounted to anything more than such furious raiding. In 720 they took possession of Narbonne. Four years later, they were operating in another direction: following the Rhône valley they reached Burgundy, leaving behind them a trail of destroyed churches and convents. Narbonne and Carcassonne, having

remained in Moslem hands, served as bases for the third raid, which was directed by the prefect of Spain himself. But this campaign was destined to be halted by Charles Martel near Poitiers in October, 732.

The march of the Arab armies, which had been begun under the caliphs of Medina, proceeded with an impetuosity that did not stop to disarm the conquered country as it went. Waves of assailants, continuously renewed, sprang up again in their rear. The apparent stagnation in the north African area was due in part to internal troubles: but when discipline was re-established, the new elements went ahead as enthusiastically as their predecessors. The Arab conquest was not, and could not be expected to be, the outcome of comprehensive strategic planning; it is better likened to the slow spreading of a gigantic oil-stain over the country. (Map X.)

'Abnormal in its size', writes René Dussaud, 'this invasion corresponded to a normal movement on the part of Arab populations, which tended continually to penetrate, and even establish themselves, in settled territory. Arab migrations were as regular as the season.'

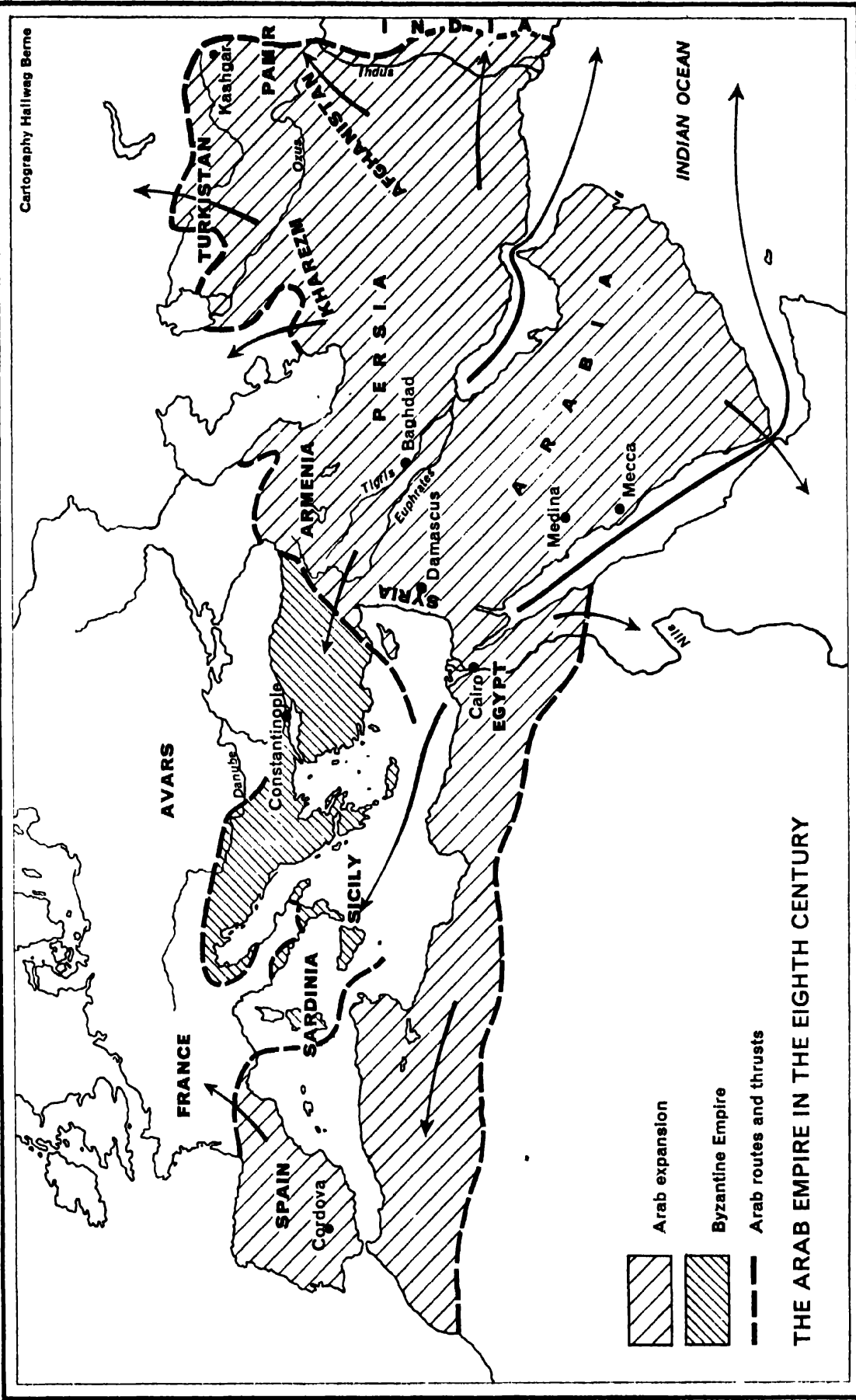
For the conquerors, the occupation of Syria was judged an easy enough operation, despite the stubbornness of the fighting. It should be remarked, too, that in this period, for which Mohammed had provided the glorious preface, great men were not wanting. The names of men like the generals Amr ibn el-As, Khalib ibn Walid, Sa's ibn Abi Wakkas and Tarik, and that great statesman of genius, Mo'awia, founder of the Umayyad dynasty should, indeed, go down in history. Nevertheless, however great the tactical skill of the leaders, whose ascendancy was undisputed, and however intrepid the soldiers they led, it must be said that the Arab successes were due primarily to the sympathy of the populations first invaded.

The Umayyads

The Umayyad dynasty of Damascus, inaugurated by Mo'awia in 661, ruled until 750. The dates are enough to indicate the debt Islam owed to this family, which in fact created a kind of Arab royalty. To the Umayyads fell the task of raising the old tribal organization to the level of a centralized monarchy. The empire was immensely rich, thanks to a fiscal system which was not long to survive. While it did, however, it acted as a continual stimulus to the conquest of new territory, in the first place to lay hands on immediate booty, and secondly because non-Moslem subjects in the annexed territories had to supply almost all the tax revenue, or at least were taxed far more heavily than the Moslems. Appetites for gain were thus kept whetted by material revenue for ever on the increase.

The Arab Empire

The Moslem empire of the first century of the Hegira, the seventh century by our calendar, may be termed an Arab empire, using the term in a wide sense, discarding absolutely the idea of nomadism, and not forgetting that



MAP X

what united the Arabs was the Koran revelation. This Arab sovereignty was carried to heights of great splendour by men of outstanding ability, the Umayyad caliphs of Damascus. For a hundred years, they contrived to ride the storm of a thousand internal difficulties, of which in this account we shall take note of only the major ones, those which throw light on the orientation of their ideas, but passing over the terrible antagonism between the Arabs of north and south, the ultimate family tragedy. They had to contend with warring factions which included the supporters of Alid legitimacy and the Kharijite revolutionaries and a third party made up of miscellaneous malcontents grouped around a leader who wanted the caliphate back in Arabia.

The outcome of it all was an improbable mix-up of populations, unified only by the preaching of the Koran. A race that on the stage of ancient history had never played anything but a minor role now spread out across two continents, through which it was to effect a religious transformation and everywhere to impose a new language.

These Arabs, judging by the accounts of their own historians, learned a great deal from their contact with Syrians and Egyptians, down to the last details of domestic life and, to an even greater extent, the principles of national administration. The territories conquered became provinces of the empire. Jews and Christians were the subjects of the second zone. They were called *Ahl al-Kitāb*, the 'People of the Book', being in possession of Holy Scripture; the Zoroastrians were considered to be on the same footing.

The system of property. The property system underwent no change: in Egypt Syria and on the Iraqi border, land had for a long time belonged to the state, with the cultivator, after payment of certain dues, enjoying the usufruct. In Egypt and Syria, the Arabs found a régime of large estates, which favoured distraint on the part of the early prefects. The peasant remained bound to the soil, in pitiful conditions and with no hope of improvement. The workers on the land constantly had recourse to the only measure open to them in the face of the taxes imposed on them, namely flight. The impression we get is of an agrarian capitalism—sometimes a state capitalism—of large estates, worked by poor peasants, who were not allowed to leave them.

The position of the Syrians and Egyptians, legally protected by the Moslem state, was in general not unlike that in which they had found themselves under the Byzantine prefects. An overall survey of the administration of the occupied territories at the end of the seventh century reveals in the main a continuation of the methods of the former régimes, Byzantine or Persian, the whole clothed in a Moslem outer garment, the effect of which on the indigenous peoples was negligible. By this exercise in moderation, the Arabs encouraged the natives in the belief that their liberation from their former masters was something for which they had been predestined.

Government under the Umayyads. By the time the Umayyad dynasty established itself in Damascus, governmental machinery was already well under way. In a

number of respects, the Umayyads found themselves behaving Byzantine-wise more or less involuntarily, as, for instance, when it came to presiding over the distribution of the natural and industrial wealth of the annexed countries. In other respects, they often deliberately adopted Byzantine procedures in an effort to avoid antagonizing newly subjected peoples and because they found in practice that the governmental systems were excellent. Budgets were easily balanced; there seemed indeed to be an unending surplus, the inhabitants of Mecca and Medina deriving therefrom a new high standard of living.

One picture of the Umayyad caliph reveals a Bedouin prince, ruling according to the Arab tradition over members of the same tribe, encamped under arms, possessing no land. He tried to the best of his ability to counteract the danger of splitting up the tribes, and the hatreds so engendered. As sovereign, he was responsible for the administration of conquered areas, the inhabitants of which were neither Arabs nor Moslem, and, like the early generals, his method was to maintain the already existing governmental customs and to retain the old officials.

As may readily be imagined, too, the Umayyad court was a copy, with improvements, of the courts of the Ghassanid princes. The dynasty's founder did not wait for the day of his enthroning to begin to copy the Byzantine pomp which he found so dazzling. The first definitively Byzantine gesture was the designation of an heir-presumptive. There may, of course, have been other considerations that carried greater weight—Umayyad memories of the administration of a pagan Mecca, for instance, or the demands of the Syrian entourage, anxious that Damascus should remain the capital.

The structure of society under the Arabs. Society as it now emerged was complex. First, there were the conquering Arabs, who formed the nation proper, having a sense of superiority derived from membership of the religious community, which was now transcending tribal allegiances; next, the slaves, their numbers ever mounting as conquest proceeded, who were emancipated on conversion to Islam and became integrated eventually into the nation; and, finally, the conquered people, the populations of the subjugated countries, who were left undisturbed in their way of life, but were regarded as some kind of superior livestock, to be taken good care of because they bore the major part of the tax burden. With but slight modification, one might say of the Moslem approach what was said of that of the Emperor Julian: 'It was a gentle persecution, attracting to conversion rather than forcing to it.' These protégés, converted in the mass conversion of the first half of the eighth century, were finally to burst the confines of the original framework and give birth to a general anti-Arab movement.

Of this Arab empire, only Syria and Egypt have so far been discussed; the advance of the Umayyad armies, however, extended also into central Asia. The administration of Persia and Mesopotamia was not neglected; indeed, it was to Mesopotamia, a particularly disturbed region, that the Umayyads des-

patched their best prefects, who showed themselves to be as severe as they were efficient.

It was the phenomenal success of the process of Islamization that was the undoing of the empire. The new converts, on embracing the faith, did not thereby shed the memory of their origins or the traditions of their own fatherland. Already, even under the Umayyads, can be seen the emergence of ethnic differences which were later to be the undoing of Islamic unity.

C. Persia and the Abbasids

The awakening of Persia. While in Egypt and Syria the signs were rather of local feeling against Byzantium than of anything amounting to a national sentiment, the Persians, withdrawn, apparently apathetic and passive, and with little contact with their conquerors, were suddenly to bestir themselves in a singular bout of avenging energy. It was not immediately apparent for what it was, since, in Mesopotamia and Persia, the risings took on nominal religious guises; but these nominal guises hid the fact that the real motivating factors were ethnic and social. Not long afterwards, the western end of the Mediterranean was also the scene of wholehearted attempts at secession, the success of which was not long delayed.

By and large, the conversions had been quite substantial since the Persians were not insensible to the prestige of Islam and its victorious armies. But, although they put up only a half-hearted resistance to the Islamic attempt to absorb them, they nevertheless made quite clear their intention of preserving the principal features of their own traditions. Conversion, from the second century of the Hegira onwards, was partisan, with a distinctive political colouring, rent as it was by crises, schisms and heresies. When everywhere, under the influence of the Koran, the different subject races had come to forget, if not to curse, their ancestors, the Iranians had the effrontery to proclaim themselves as being descended from heroes. The Moslem religion had been unable to annihilate the last vestiges of a glorious past, which was linked closely with a cult of the princes of Iranian antiquity.

National spirit had thus re-awakened in Persia and this fervour was to disrupt the Arab unity which the Umayyads had seemed to be consolidating. Events certainly conspired against the Damascus caliphate, attacked now in the name of a new idea, which it could not combat effectively. Over the legitimacy issue it had arguments at its command, but, faced with a surging anti-Arab movement, it was at a loss. And the very speed with which supporters flocked to Abū Muslim was proof of the power of the idea behind his preaching.

Revolt in Khurasan. The Umayyads could have had no inkling of the reactions of the Persian people, whose revenge was prepared under the standard of Islam. In the Khurasan region, particularly, which had been selected as the place of exile for the most troublesome Alids, it was simplicity itself to muster

insurrectionists. Some rushed to join out of hatred for the Arabs, and those who were Shiites proper believed they were acting in the cause of the Alids. Nor must it be overlooked that the Alid movement had its origins in purely Arab territory, but undeniably it was also a movement which the Persians knew how to turn to their own ends.

Propaganda at first was carried on underground, and it was not by accident that the movement's instigator, Abū Muslim, made his headquarters at Merv, in Khurasan, in the very town where the unfortunate Yazdgard had died. Risk, even danger, doubtless answered the profoundest aspirations of the Persian people. The success with which the plans went through points to a long-standing conspiracy, admirably conducted against the Arab caliphate. The successive preachings of the faith had found a population asking nothing better than to serve under new colours: hence Abū Muslim's black shirts.

The Abbasids. Enslaved Persia was to become the educator of its conquerors: the Abbasid administration owed it everything, from court etiquette to the good manners of the bourgeoisie. Above all, old Iranian beliefs served as the inspiration for innumerable sects, half religious, half political. The most curious part of the revenge was the anti-Arab sentiment that developed in the Islamic empire alongside the uninterrupted progress of conversion. Henceforward, Arab and Islam are no longer synonymous. The Moslem religion is expected to fuse the races, as it had formerly fused the tribes, and the true homeland is thought of as wherever Islam reigns.

The revolution that set the Abbasid family in the place of the Umayyads was of considerable importance. The consequences were numerous, and Moslem society underwent a radical change, for Iranian culture now supplanted Byzantine influence. The removal of the capital from Damascus to Baghdad struck the centralization of the empire its death blow; it meant that the caliphate could no longer play a political rôle in the Mediterranean.

The break-up of the Arab empire. The Arab conquest had produced an empire too immense to last in its original form. The caliphate's lieutenants, serving at the extremities of the empire, were, despite the speed of the posts, too remote from the capital. Whatever the sentiments of an Umayyad prince of Spain towards the new dynasty, it was futile to pretend that he would put into effect in the Iberian peninsula injunctions issuing from Mesopotamia.

The result was that, from now on, first Spain, then north Africa, sought to establish their autonomy within the original framework of institutions. These manifestations were followed not long afterwards by a schism between the eastern and western empires, each going its separate way.

One scion of the Umayyad family, tired of wandering in north Africa in search of some place where he could settle and found a principality, sought refuge in Spain, to which he made his way in September, 755, through the good offices of certain Yemenite contingents installed there. Showing great skill in manoeuvring both the Arab elements and the Berber colonists, this

Umayyad prince gained general control of them all and established the emirate of Cordova. Although accepting a Platonic allegiance to the caliphate, he was, in practice, independent of Baghdad, which, in view of the distance, in any case displayed a total indifference to affairs in Spain.

The Berbers' revolt. In the Berber countries a national resistance of a very characteristic kind came into being fairly rapidly. The Berbers had certainly gone over to Islam more quickly than, for example, the Copts, but their revolts, provoked in most instances by the arrogance of the Arab soldiers, strike a very individual note. At bottom, they struggled for independence, but on the surface the Berbers appeared to be taking up arms in defence of their Kharijite convictions.

From the point of view of the empire, the Berbers were following in the footsteps of Spain, but, in fact, their secession had its roots further back in time. Two small dynasties had been founded among them by men taking their stand as opponents of the power of the caliph. There was, first of all, Abd al-Rahman ibn Rustem, of Iranian origin, who established himself at Tiaret and combined with the Midarids of Tafiilet. The second principality of the Maghreb was the Alid. For the Berbers, that made one more banner to wave in opposition; the Idrissids created the kingdom of Fez.

Baghdad relinquished these territories: repression of heresies and of schisms cost her too dear. But to neglect them entirely might be dangerous, and Harun al-Rashid was happy to hit upon a solution enabling him to establish a sort of buffer state on his empire's western boundary. The device was to secure the hereditary rule for a family that had contrived to establish itself in power in what is now Tunisia: whence arose the Aghlabid dynasty.

CHAPTER III

THE MOSLEM ZENITH: EUROPE AND BYZANTIUM FROM THE SEVENTH TO THE ELEVENTH CENTURIES

I. THE MOSLEM ZENITH

THE establishment of the Abbasids in Mesopotamia brought no apparent changes in the way of life. The success of the vast conspiracy that had brought them to power, and the singular mixture of elements involved in it, led at first to the observance of a certain tolerance. It should not be forgotten that the provinces south of the Caspian Sea retained their autonomy; the minor princes in Pahlavi continued to mint money and their subjects to practise the old religion. Certain of the capitulation treaties, indeed, had contrived provision for the maintenance of the fire temples. Even the converted still held to ideas that were closely akin to those of the old Persians. The preachers of the new doctrines had found a population easily moulded to their purposes. In the violence of their hatred of the Arabs, they were ready to fall in enthusiastically behind the Persian nobles, who sought the restitution of past glories, and the indigenous commoners, who were avid for social reform—the partisans of Alid legitimacy and the professional agitators. The risings always had about them an aura of Persian mythology—an impression borne out by the quite late survival of the fire temples in Iran—or were accompanied by Alid propaganda. The Umayyad had been the active leader of all believers; the Abbasid, a supreme pontiff, tended imperceptibly to move into the position of a monarch ruling by divine right, an old Iranian concept.

Another idea came gradually to shape Moslem thinking—that the state that had been founded, if only in embryo, by Mohammed, must be of a supra-human nature. That Mohammed was a prophet was undeniable, and the new organization envisaged by him was bound to possess some kind of supra-terrestrial validity, since God had chosen him to transmit His Word. It thus became clear that Islam was not only a religion, but also a political system. The Moslem community had become a state, with a stable juridical system for it as a collective unit and definite rules for the individual. A glance back at the nomadic tribal organization that once constituted the way of life in Arabia reveals the progress made during the Abbasid period. In Islam, where there was, at least at first, no separation of temporal and spiritual power, the caliph was tempted to present himself as the defender of the faith. This rôle was assumed the more eagerly because, as there had never been any recognized religious hierarchy, he had no sense of going beyond his mission.

A. The Break-up of the Caliphate

Harun al-Rashid's Political Testament

The reign of Harun al-Rashid had several major consequences for Islamic history. Harun's predecessors, in instituting the vizirate, had made certain that the life he stepped into was free of the cares of power. But what now transpired was the complete break-up of the empire of the caliphate, a natural and not unexpected outcome of events as they were proceeding. In legal terms, if these events are to provide the explanation of a situation presenting itself practically as a *fait accompli*, the source of it all lay in the famous political testament of Harun al-Rashid, which was solemnly deposited in the Ka'ba. In it he laid down an order of succession to the throne (it later seemed that he had been unwise thus to commit himself) and provided for the division of the kingdom, thus giving a spur to rival ambitions and paving the way for the break-up of the kingdom into semi-autonomous principalities. The consequences of his action could be seen almost at once; the caliph Mamum, for instance, entrusted the administration of large areas to men whose loyalty he was sure of, without obliging them to live on the spot.

A violent crisis arose—significant if only for its brutal openness—in the shape of strife between the two sons of Harun al-Rashid; Mamum, son of a Persian, rose up against his brother, the caliph Amin, who came of purely Arab stock. The outcome of this fratricidal war is well known; an army from Khurasan marched on Baghdad and the caliph Amin was dethroned and murdered. Mamum attempted to govern the whole empire from Merv and it took a rebellion in Baghdad to make him abandon the attempt.

In the reign of Mamum, Islamic civilization took a step which was to provoke bitter controversies. The constitution of the caliphate was based on a number of factors, which may be summarized as follows: the caliphate was charged with ensuring the observance of Koranic law, which thus became the basis of all public and private law; the sacred text now applied to individuals who were not necessarily of one race. On to this constitution had been grafted a number of traditions which derived as much from Byzantium as from Iran.

The Arabs' star was quite definitely on the wane in the political firmament, despite the fact that the Moslem world was governed as a unit by a caliph whose proud assertion was that he was the descendent of the Prophet. The Abbasids were persuaded to favour things Iranian, under the pressure of public opinion in their capital, which teemed with Persians, men who had brought the caliph into power and were counsellors confident of a hearing.

In the literary world, as in politics, the Persian fashion now prevailed. This ninth century was, for Mesopotamia and Persia, a period of splendour. We witness the unfolding, under the stimulus of outstanding rulers, of a rich cultural and scientific literature and a high artistic flowering. Arabic translations of the main philosophic and scientific works of antiquity were made and,

under this influence, Moslem theologians, unable to remain aloof, were forced to evince an interest in the relation between reason and religion.

Fifty years after the dynasty's accession, the nature of the army changed as a result of the constant influx of Turkish mercenaries, recruited from central Asia. Arabs and Khorassians were eliminated and these praetorian guards came to wield a dominant influence, a fact that was profoundly to alter the political balance of power in Islam. These Turks were arrogant and insufferable; they made and unmade caliphs at will, without respect even for their persons.

The employment of the Turks from the ninth century onwards led to a steady widening of the separation of spiritual from temporal power and so, in a sense, to the distortion of the tenets of primitive Islam. The Turks had pretensions to government, and little by little, made this clear to the Moslem world. They destroyed nothing, but superimposed their authority on the existing machinery. They retained both the caliph and the vizier, both now dependent on their protection and simply crushed them ruthlessly at any sign of intransigence.

The old religious dissensions and troubles from army sources were not the only factors at work undermining the power of the caliphate. It had been possible hitherto to dismiss social disorders as random and unconnected occurrences, but the following incidents would seem to represent something more than the product of everyday stresses and strains.

The Zott and the Zanj. In lower Mesopotamia lived a gipsy tribe called the Zott, which, for ever in a state of virtual insurrection, used to pillage and molest merchants on their way from India and China. The same country was the scene a short time later of a serious Spartacist commotion. Negroes, who came originally from Zanzibar on the east coast of Africa, led by a Persian, sowed terror over the entire area between Basra and Baghdad. The country, extremely marshy and unhealthy, had for a long while been cultivated by negro slaves, cheaply purchased, who had been installed there by the Umayyads as a means of stealing a march on the Arab tribes. These Zanj, as they were called, worked in pitiful conditions and were not easy to handle. They had already caused trouble at the end of the eighth century, at which period it had been possible to pacify them. But in 869 the first signs appeared of the serious black revolt that was to make lower Mesopotamia a land of blood and terror for fifteen years.

The Emergence of Public Opinion

Little reference has been made so far in this account to public opinion, an omission which may have seemed odd. All the evidence goes to show, however, that in the medieval east it was not communities who played the essential part. Crises were never occasioned by a desire for reform or national progress; the dominant factors were simply individual appetites for power. There existed

no semblance of the kind of solidarity which we term civic spirit. The foreground was occupied by outstanding personalities, who had grasped the political or geographic importance of a region. Local elements are therefore not to be expected to exert any great influence and investigation leads us to ask different questions. How far did the personal ambitions coincide with the interests of the populations whose government was at issue? If such coincidence existed, these leaders were contributing to the emergence of a community which was increasingly aware of the possibilities of cohesion.

All at once, however, revolutionaries appeared who showed an interest in the aspirations of public feeling, and went so far as to seek to enlist popular sympathy. High-calibre officials were to be found at work at all social levels, armed with arguments selected for applicability to the group to be influenced and adducing in support religious, social, or racial proofs. These seething philosophic controversies were bound also to lead to crises of indiscipline. The most serious of these from the point of view of the safety of the empire was the Carmathian movement, which produced a reign of terror throughout the whole Moslem East. The immediate goal of Ismaili missionary activity, however, was not the masses, the tendency at first being rather to win over the élite one by one.

The Waning of the Caliphate

The ninth century was thus for the central power a troubled and difficult period, disturbed, as it was, by the Zends, then by the Carmathians, and by the Persian hegemony in Baghdad, against which the caliphate struggled, while Arab lawyers established explicitly Islamic legislation. A powerful caliph, capable of enforcing his will, was succeeded by a mere figurehead, who was set upon the throne by a vizier, who retained the actual power in his hands until he too was finally deposed by the Turkish military chiefs.

The diminution of the authority of the caliph was accompanied by a corresponding territorial disintegration. The tenth century was to see the birth of a number of independent principalities. The splitting-up followed not the lines of a tribal or national sense of community, but the dictates of geography. The caliphate, forced to tolerate these lordships, pretended that they existed by royal decree. Carmathian subversion did the rest by developing the propagation of ideas inimical to general harmony. The Abbasid capital in the first half of the tenth century was indeed in a lamentable state, and it became increasingly clear that the caliphate, divested now of all prestige, was no longer a power to be reckoned with.

Thus had eastern ideas been developing under the pressure of political and social events. There is clearly a predominant trend running all through this period of the tenth century: each of the great Islamic families hewed itself out a kingdom, almost as if they wished to check the tendency to divide up which was splitting the Moslem world into an infinite number of principalities. One striking fact is worth noting particularly. Three caliphs, representing

the principal activities of the beginnings of Islam, divided the Moslem world between themselves. An Umayyad reigned at Cordova, and was soon to secure the allegiance, though for a short period only, of north Africa, which had been abandoned by the Fatimids. The Fatimids, descendants, or pretended descendants, of the caliph Ali, established themselves in Egypt. In Baghdad, the Abbasid ruler, least independent of the three, struggled to resist Shiite propaganda, Fatimid or Buyid, which threatened to rob him of what authority remained to him, or, at least, to unsettle his subjects.

In the east, the new masters of the principalities were Iranian, with a mixture of penniless adventurers and aristocrats—Tahirids, Saffarids, Samanids, Buyids or Turks, Ghaznavids and Seljuqs. The boundaries fluctuated and power was ephemeral. The important point historically was that everywhere the methods of government were Iranian.

Egypt at this period, before the accession of the Fatimids, was still a province of the Abbasid empire, but in theory only, for a discredited caliph was hardly in a position to issue directives. Southern Arabia likewise had slipped from the caliph's authority, being ruled by the Carmathians, who had founded a state on communist lines at al-Hasa.

One small dynasty, the Hamanids, should be mentioned, as being the only Arab one. The head of the family, which was established in the Mosul region, was successively Kharijite and Shiite, fought against the Carmathians, received the support of the caliph, who called him to Baghdad, and finally founded a principality. The area he chose, however, was far from peaceful, and the hero of the family, Saif al-Daula, set his heart on Aleppo. It was a period of renewed Byzantine aggression and both Nicephorus Phocas and his Hamanid adversary have come down to us as figures in an epic story.

The various princes who now shared the Moslem east made war among themselves and scarcely united even in face of a common danger, whether this came from outside, such as that from the Greeks, or from internal religious dissension. As a result, the prefects of Egypt, the semi-independent Ikhshidids, stood alone in making the slightest resistance to the Fatimids. But such affairs cannot satisfactorily be judged in the light of modern conceptions of the state. Most of all, it would be wrong to think of this mosaic of territories as though they had hard and fast frontiers. The populations were entirely Moslem, a common mystique obliterated all individual peculiarities and nowhere was there any regional or dynastic patriotism. Except in particularly troubled periods and despite local disturbances, the trade routes had ruts worn deep with use and every year the pilgrimages from all sides converged on Mecca.

Basically, the various populations were more Moslem than separatist. Each region had its ruler, an individual who had won authority by wealth or ability and to whom obedience was accorded, but succession was always attended by problems, numerous children always being involved in an intrigue to seize power. And when a new ruler proved a failure, the people's allegiance was to their religious faith rather than to a particularism which they did not really

understand. The extension of the various principalities varied, moreover, as one successfully infiltrated into the territory of another, making frontiers not only precarious but also indefinite.

But it must be said that, for the ordinary man or for the traveller, the changes did not appear to have the clear outlines which this analysis suggests. Each principality was a sort of caliphate empire in miniature, the name of the caliph being pronounced in the mosques every Friday. As far as public law was concerned, the prince was but the caliph's representative, and the problem of heredity had long since ceased to cause much trouble. The frontiers, sketchy as they were, presented no real difficulty to the individual: crossing them, merchants or pilgrims had to contend with no differences in religion, language, or way of life. The break-up of the unity had, quite clearly, no adverse effects on the upthrust of Moslem civilization.

The state of affairs as described above perhaps needs some slight qualification: the populations leant towards either Sunnism or Shism. The Alids of Persia, Buyids included, were Imamite and relatively unsectarian. Division between the two tendencies in Islam became more marked with the increase in the propaganda of the Ismaili Fatimids.

Outside Egypt and Palestine, the effective authority of the Fatimids was minimal, but it was nevertheless galling for the Sunnite community, the power of whose leader was diminishing every year, to see Shiite sovereignty recognized (albeit with moments of eclipse) in Syria, Arabia and upper Mesopotamia.

Fatimid policy, however, remained, by all accounts, weak—not only in the lines taken in religious matters, but also in the attitude adopted in the face of the threat from the Crusaders. The Crusaders had been able to entrench themselves, thanks largely to the disunity in the Moslem camp. In Syria, local princelings, more or less independent, lent themselves to Sunnism or Shiism according to their interests of the moment. In the eleventh century, power in Palestine, Damascus and Aleppo was in the hands of Arab tribal chiefs. The Fatimids played very much a secondary rôle, and undoubtedly displayed a dangerous apathy and the Sunnite princes did not seek the co-operation of a Shiite army from Cairo. And—a fact of exceptional importance—the masters of Egypt considered the Franks less troublesome to the safety of their own dynasty than the Sunnite Turks.

The death-throes of the Fatimids coincided with the zenith of the Latin kingdom of Jerusalem. The taking of Ascalon clearly preluded an attack on Egypt. It was precisely at this time that the Franks were encouraged to involve themselves in the internal struggles being waged between ministers and aspirants to the vizierate in Egypt itself. The position of the Fatimids finally became desperate; it was clear that, if Islamic unity was to be preserved, power should be transferred to a new force, the Seljuq Turks.

B. Communications and Trade

The Arabs have been called 'the inaugurators of world-trade, as this

operated in antiquity'. It has also been said that it was 'India which imposed Arabia on the minds of the civilized world'. The dangers of the Mesopotamian routes had certainly led the wealthy Meccan tribes to attempt, successfully, to direct caravans coming from India to Syria through the Hedjaz. One result of the Arab conquest, however, was to ruin Mecca commercially, Mesopotamia and Syria having come under one authority.

The Mediterranean. There are no signs, on the other hand, that any serious setback was suffered by Mediterranean shipping. The pilgrim Arculf, passing through Alexandria thirty years after the Moslem occupation, met 'innumerable races' taking on provisions. In the course of the ninth century, the Arabs established themselves in the Balearic Islands and in Corsica, Sicily, Calabria and Campania and then proceeded to conquer Crete. These achievements stimulated the audacity of the Moslem corsairs, who made raids on the coasts of Provence and Italy. These pirates, however, apparently also protected merchant vessels, and it was on a Moslem ship that the monk, Bernard the Wise, embarked for Egypt, armed with a passport from the Moslem emir of Bari.

Trade was further stimulated by the bringing of Sicily into the Islamic orbit, though agriculture remained by far the island's greatest source of prosperity. The Moslems introduced the palm to Sicily, as well as cotton, sugar cane, spinach and the melon; agricultural treatises of the time cite Sicilian methods as models. A further probability is that there were regular maritime services operating between Spain and Egypt and Constantinople.

The establishment of Islam thus entailed no curtailment of trading relations with the Christian West. Demand continued in Europe, as in the past, for spices from India, pearls from the Persian Gulf, precious stones, perfumes, silk and ivory. Alexandria retained its prestige, and there was no necessity to create a new market. 'The Arabs', writes Robert Lopez, 'masters of an empire extending from the Gulf of Gascony to beyond the Indus, involved in commercial enterprises reaching into Africa and Baltic Europe, brought East and West together, as never before. Weaker, and in consequence less feared and able to move more freely, the Rhadanite Jews, spoken of by a ninth century Arab geographer, plied between Spain and China, by three different routes that enabled them to call at the principal market-places of Southern Europe, North Africa, and Central and Southern Asia.'

Trade with the Far East. These famous travellers, on their way to India, used the Red Sea ports of Jar and Jidda and, in the Persian Gulf, Ubullah, formerly Apologos. Mention is also made of Basra, which supplied Baghdad, where there was a merchant specializing in Chinese curiosities. Another port, Siraf, on the shores of the Persian Gulf, could accommodate large seagoing vessels. A number of reasons had been conducive to the choice of Siraf, most notably the fact that Chinese vessels did not venture as far as Basra. As trade extended as far as the Yemen and the Red Sea, moreover, it was a waste of precious time

for ships with goods for Egypt to call at Basra. The town of Muscat also played a big part in this flow of shipping to and from the Eastern seas, as did the little coastal ports of Oman.

In the Far East, a new factor apparently came into play in the middle of the ninth century. As a result of the vexatious actions of the Chinese authorities, the shipowners decided to proceed in future only as far as the island of Malacca. There cargoes of pewter, camphor, bamboo, aloes, ivory, cloves, sandalwood, nutmeg, cubeb, cardamom, silks and porcelain were loaded.

On the Red Sea, the important port was Jidda, a flourishing city of rich merchants, but Aden was from this time known as the 'vestibule of China'.

A journey made by Nasir-i-Khusian in the eleventh century is of interest to us in that his account shows the emergence of the Egyptian port of Adhab, which was to become a major port when, not long afterwards, the Crusaders cut the land communication between Egypt and Arabia.

Roads. Continental trade had been no less thriving before the creation of the kingdom of Jerusalem. The Moslem authorities had found everywhere a network of well-planned roads, dating back at least to the Hellenistic period; they had only to maintain and police them. One road linked the Egyptian capital to Damascus, passing through Bilbeis, Farama (Pelusium) and al-Arich and passing out of the Syrian-Palestinian region at Gaza. Another went out from Egypt towards the Maghreb; its terminus was at Fez, which was the meeting-place of several routes. Situated on the road from Algeria to the Atlantic, Fez was the starting-point of another road which gave access southwards, across the Sahara, into the country of the Negroes, where gold, slaves and ivory were to be bought.

The main stages on the trade routes of central Asia had been established with admirable judgment by Alexander; he had founded cities whose prosperity endured into the Middle Ages—Herat, Kandahar and Khojand. 'Emerging from the nomadic life of the steppe, Turkestan developed an urban and commercial life, in the caravan-route oases, and through the chain of these oases established communication between the great sedentary civilizations of the West—the Mediterranean world, India, Iran—and that of the Far East, China.' (R. Grousset.) Chinese historical sources show that, in the eighth century, commercial caravans were plying right across the area between the Qarluq country and the upper Ienissei.

In the tenth century, the journey from Khurasan to China took forty days, travelling through both fertile country and sandy desert. By another route it took four months; the journey was dangerous, and protection from the Turkish tribes had to be assured. Guides were indispensable in all cases, as were porters for parts of the road where pack animals could not go.

Arab colonies in India. Overseas, the Moslems had their trading posts in Sind and Gujarāt, which were the countries with the longest history of Arab trade relations. Further south, there was, in the tenth century, an important Moslem

colony at Saymur, not far from what is now Bombay. Because of the existence of these Arab merchant colonies in India, travellers needed neither to learn a foreign language nor to have recourse to interpreters. By the end of the eleventh century, Moslem merchants are known to have set up permanent establishments in Hungary. All these facts testify to the zeal and ability which Moslem society could call upon in commercial matters. In this connection, there is little importance to be attached to the Samanid coins that have been unearthed in Russia and the Scandinavian countries; they cannot be considered as certain proof of the expansion of Islamic trading ventures. A more likely connection would be with the peoples of the Caspian region, Bulgars or Khazars, who are thought to have acted as intermediaries, their caravans going out to the Samanid kingdom across the Khwarezm. The Bulgars imported goods supplied by the Khazars and the Russians and sold sable, ermine and squirrel furs to the Moslems.

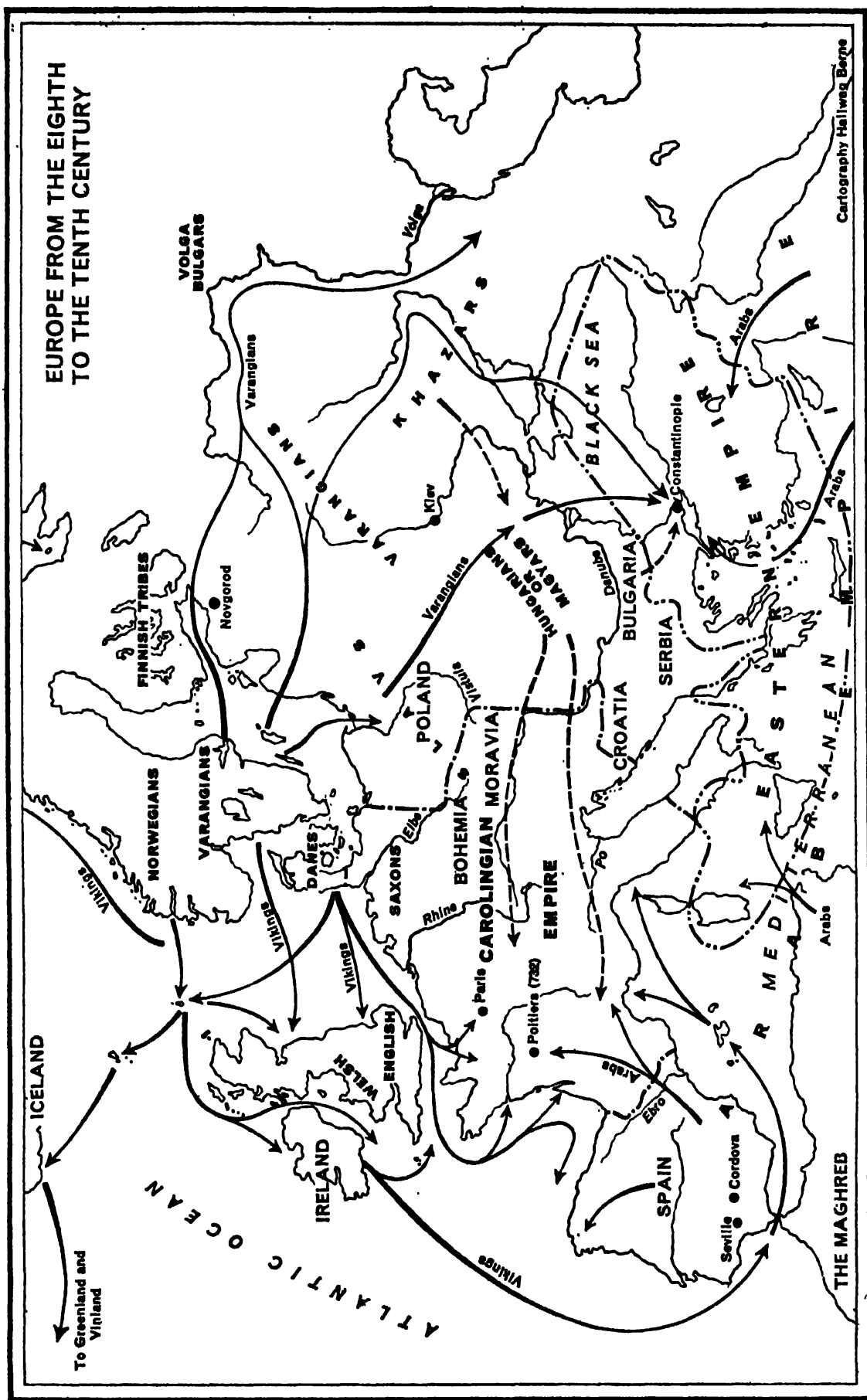
Trade caravans must have been journeying on almost all routes at fairly regular intervals. Individuals could join the caravans if they wished, and it is clear from the very frequent replacement of emissaries and ambassadors that land journeys must have been normal and regular.

2. EUROPE AND BYZANTIUM IN THE CAROLINGIAN PERIOD (EIGHTH TO NINTH CENTURIES)

Pre-eminent among all the factors affecting countries in the Mediterranean region in the seventh and eighth centuries was, of course, the Arab conquest. Nor were its effects confined to the area over which it actually extended. Byzantium, which lost its most prosperous provinces, felt it considerably. Some historians have gone so far as to trace to it the decline or rise of western Europe and these hypotheses merit full consideration. Byzantium was in eclipse, and the stage is seen to be occupied by the Carolingians, unifiers of the greater part of western Europe. It would be wrong, however, to focus attention on them exclusively. There were other factors, such as Scandinavian expansion and Slav penetration, less well known perhaps, and even now principally noted for their destructive effects, which must, nevertheless, be taken into account. (Map XI.)

A. The Eclipse of Byzantium

Arab successes at the expense of the eastern Roman Empire plunged the latter into the depths of a profound crisis, in which its very *raison d'être* seemed to be called into question. It is true that Egypt and Syria were the richest of the Empire's provinces, but their loss was the more cruelly felt because it was not the only one which the Empire suffered. Since the end of the fifth century, the Slavs had been penetrating into the Balkans, establishing themselves as far as Greece. The last quarter of the seventh century saw the



EUROPE FROM THE EIGHTH
TO THE TENTH CENTURY

MAP XI

Cartography Hallwag Berne

Bulgars installed south of the Danube and then in Thrace, whence they were later to make furious onslaughts on Constantinople itself (see pp. 189). Fortunately for Byzantium, the Arab and Bulgar attacks never were effectively co-ordinated.

Byzantine naval power. In Italy, in face of the advance of the Lombards, Byzantine dominion crumbled gradually away, shrinking eventually to a few stretches of country, cut off from each other, around Venice, Ravenna, Rome and Naples and in the extreme south. Byzantium, however, did so far manage to retain control of the seas. Indeed, in the first half of the eighth century, she seems to have instigated a blockade of the Moslem world, the effect of which was to lessen still further the already diminished volume of Mediterranean trade. But after 820 a paralysis of the Byzantine navies, the result of internal dissension, left the Moslems at liberty to take Crete and Sicily, and Byzantine maritime supremacy was at an end.

Byzantium on the defensive. The Empire was reduced now to Constantinople, Asia Minor, the southern part of the Balkan peninsula and a few ragged strips of Italy. After the Arab conquest, Byzantium assumed that historical rôle of an organism perpetually on the defensive, alternately expanding and contracting, which it was to play until the fifteenth century. (L. Bréhier.) This contraction called in question the *raison d'être* of the Empire, which was not a state in the sense that other states were. Was not the essence of the Roman Empire its universality? Was it not its providential mission to assemble all the faithful under the aegis of a human city that should represent the City of God on earth? This was the faith that had activated Justinian and his successors showed no sign of renouncing it. But they were powerless to halt the transformation of the Roman Empire into the empire of Byzantium.

Economic crisis. This contraction of the Empire inevitably entailed internal disorganization, the signs of which were manifold. First came economic crisis. Constantinople's food supply, hitherto derived principally from Egypt, was with difficulty kept up by drawing on corn from Sicily, from Asia Minor and, later, from the plains that now form southern Russia. There was a great scarcity of coin because of the decline in commerce and the additional drain imposed by tributes paid to enemies and gifts made to the Church on the part of the devout. The Empire became increasingly rural; the installation here and there of settlers meant a certain development of the system of small peasant holdings, but on the whole the predominance of the great estates remained unchallenged.

The Military takes over. Imperial organization took on a more military look. The traditional separation of civil from military power no longer met the requirements of the time. The unit of organization now became the *theme*, a term designating at first a body of troops stationed in a province, then, significantly, the province itself. All authority in the province was held by the

military officer, the *strategus*. The army, within which the great landowner exercised so great an influence, took on a correspondingly more important status.

It is not surprising, therefore, that this era of reverses should also have been a period of political dissension. Two decades of particular tragedy, between 695 and 717, saw the proclamation of no fewer than seven successive emperors, at a time when the Arabs were preparing to lay siege to Constantinople.

Cultural and religious decline. Not the least striking of the elements of the Byzantine crises was the drying-up of intellectual activity. For instance, the first half of the seventh century saw, in Alexander of Tralles and Paul of Aegina, the last representatives of the great Greek medical tradition.

Signs were apparent also of a deep spiritual and psychological unease. The religious form assumed by the Byzantine-Moslem conflict and the inability of either side to gain a decisive upper hand led, in the early eighth century, to a preoccupation on both sides with the idea of repentance, and belief in the imminent end of the world. There was a psychological depression in the air, a mood not unconnected with the resurgence on both sides, though in different forms and with different effects, of dissension over the place of images in religious observance.

The cult of images. The cult of images—frescoes, mosaics and portable icons, depicting Christ, the Virgin, or the saints—had in the early eighth century, especially among the lower classes, reached disproportionate dimensions. Certain of the images were declared to be the work not of human hand. Power to work miracles was attributed to them. The reaction provided by these excesses gave rise to violent conflict, which, for more than a century, was to be the salient fact of Byzantine history.

The crisis was not an isolated one. When, in 726, anti-image propaganda was launched with imperial backing, orders had just been issued by the caliph Yazid II for the destruction of images whether in temple, church, or house. Heretical Christian sects in eastern Asia Minor—for example, the Paulicians—were expressing their horror at all worship offered, other than the purely spiritual. Were external influences making themselves felt in the Empire, or were these symptoms merely parallel expressions of a persistent undercurrent of thought not new to the Near East? The principal iconoclast emperors were a Syrian (Leo III) and an Armenian (Leo V); the restorers of image worship a Greek (Irene) and a Hellenized Paphlagonian (Theodora). The conflict might thus well be taken as a reflection of an old irreconcilability of Greek and Oriental elements.

Another factor, peculiar to Byzantium, should not be overlooked. The monks, who were in close contact with the people and naturally hostile to the intellectuals who activated the movement against images, found themselves becoming their major defenders. By their numbers, the extent of their land, their wealth and the influence they wielded with the masses, the monks

represented a real power in the state and the emperors were glad to seize upon the conflict as a pretext for putting them down. A social and political conflict thus gave added force to the religious one.

The victory of the iconophiles. From its inception in 726, the struggle continued until 780. In that year the iconophile Empress Irene, assuming power in the name of her son who was still a minor, succeeded, in conjunction with the pope, in re-establishing image worship, albeit stripped of the more extravagant of its manifestations (Seventh Ecumenical Council, Nicaea, 787). In 813, Leo V revived anti-image action. The image worshippers, however, had by this time been able to systematize their resistance, taking their stand on the necessity for the Church to retain independence in relation to the state. In 843, the Empress Theodora was able solemnly to reinforce the canons of 787.

The temporary weakness of the state, however, was not the only consequence of this bitter conflict for Byzantium. It emerged from it, in the end, strengthened, its coffers replenished with the gold confiscated from the ecclesiastical treasures. There was also an appreciable effect on relations with western Europe. The influx of refugees into Italy served to increase the Oriental influence; but great indignation was also felt there against the iconoclast emperors, as being responsible for a conflict, the deeper issues of which were not understood. Finally Byzantine culture emerged from it in great measure revitalized. Iconoclastic art had veered towards the representation of nature and scenes from the secular life; the victorious image worshippers sought refreshment at the Greek springs of Byzantine civilization.

B. Carolingian Europe

The Carolingians and Western Unity

With Italy torn between Lombards and Byzantines, Spain engulfed almost completely by the Moslem tide, and England a collection of unstable petty kingdoms, the kingdom of the Franks, its frontiers pushed by the Merovingians into the heart of Germany, was the one sizeable state left surviving in western Europe. And even this one was in process of dissolution. Three separate kingdoms had appeared within it—Neustria, Austrasia and Burgundy—and there were peripheral duchies over which these kingdoms in their turn were able to exercise less and less control. Ill effects were making themselves felt in the Church, which saw bishoprics vacant or seized by temporal powers, patrimony squandered and indiscipline rife amongst an ignorant lower clergy.

The Pepins. A notable movement towards reorganization now made itself felt. It was headed by a family of great Austrasian landowners, the Pepins, several of whose members had held in Austrasia and Neustria the influential office of Mayor of the Palace, charged with the responsibility for court food supplies. Charles Martel, bastard son of one of the Pepins, contrived to concentrate in his own hands the mayoralties of all three palaces. He inflicted defeats on the

Arabs at Poitiers (in 732) and later in Provence—defeats inflicted on reconnaissance and raiding parties, in all probability, rather than on invading armies; none the less, these successes won for him enhanced prestige as an effective defender of western Europe. Subsequently, frequent sequestration of the property of the Church, which he carried out to enlarge his territories or to reward his adherents, earned him the ill-will of protagonists of reform among the clergy; but the great Anglo-Saxon missionary, St Boniface, enjoyed his protection during his activities in Germany.

Carolingians and popes. Continued support from the papacy was thus assured Martel's successors. In 750, Pope Zacharias approved the accession of his son, Pepin, to the throne of the Merovingians. In 753, Pepin was appealed to for help by Zacharias's successor, Stephen II, who was threatened in Rome by the Lombard advance and hampered by the withdrawal of support by the basileus. Stephen betook himself to the kingdom of the Franks, where he performed again for Pepin and his descendants the rite carried out by St Boniface—the sacring, thereafter an essential accompaniment of accession to the French throne.

What followed as a result of this new alliance is well known. Pepin intervened in Italy and retook some of the Byzantine territory from the Lombards (Ravenna, Comacchio, etc., 755–6), which, despite imperial protest, he handed over to the Holy See. It was at this time, possibly—perhaps a little later—that the papal secretariat forged the famous *Donation*, by the terms of which Constantine, declaring himself cured of an illness through the good offices of Pope Sylvester, made over to him Rome and western Romania, a document which was to constitute, right into the fifteenth century, one of the bases of the temporal power of the popes. At all events, the traditional links between pope and basileus were now finally severed.

Prudently, Pepin (called 'the Short') refrained from turning to account the title of Roman patrician, conferred on him by Stephen II. But among his activities may be numbered the regaining of Septimania from the Moslems, the conquest of Aquitaine and intervention in Germany. He placed himself at the head of the movement for reform within his clergy, summoned councils and concerned himself with the moral level of the masses.

The coming of Charlemagne. Of Pepin's son, Charlemagne, it may be said that his strength lay in the diligence and admirable method with which he exploited every possibility open to him. The campaign for reform and conversion, conducted by St Boniface in Bavaria, Hesse and Thuringia, had opened up avenues for this work in Germany. Charlemagne directed his efforts to the northern part, known as Saxony, where social organization had remained at the tribal level, and whence raiding parties made periodic sallies into the Rhineland. After an initial period of easy victories, crystallization of Saxon resistance round a national hero, Widukind, turned the campaign in Saxony into one of the most strenuous military undertakings of Charlemagne's reign.

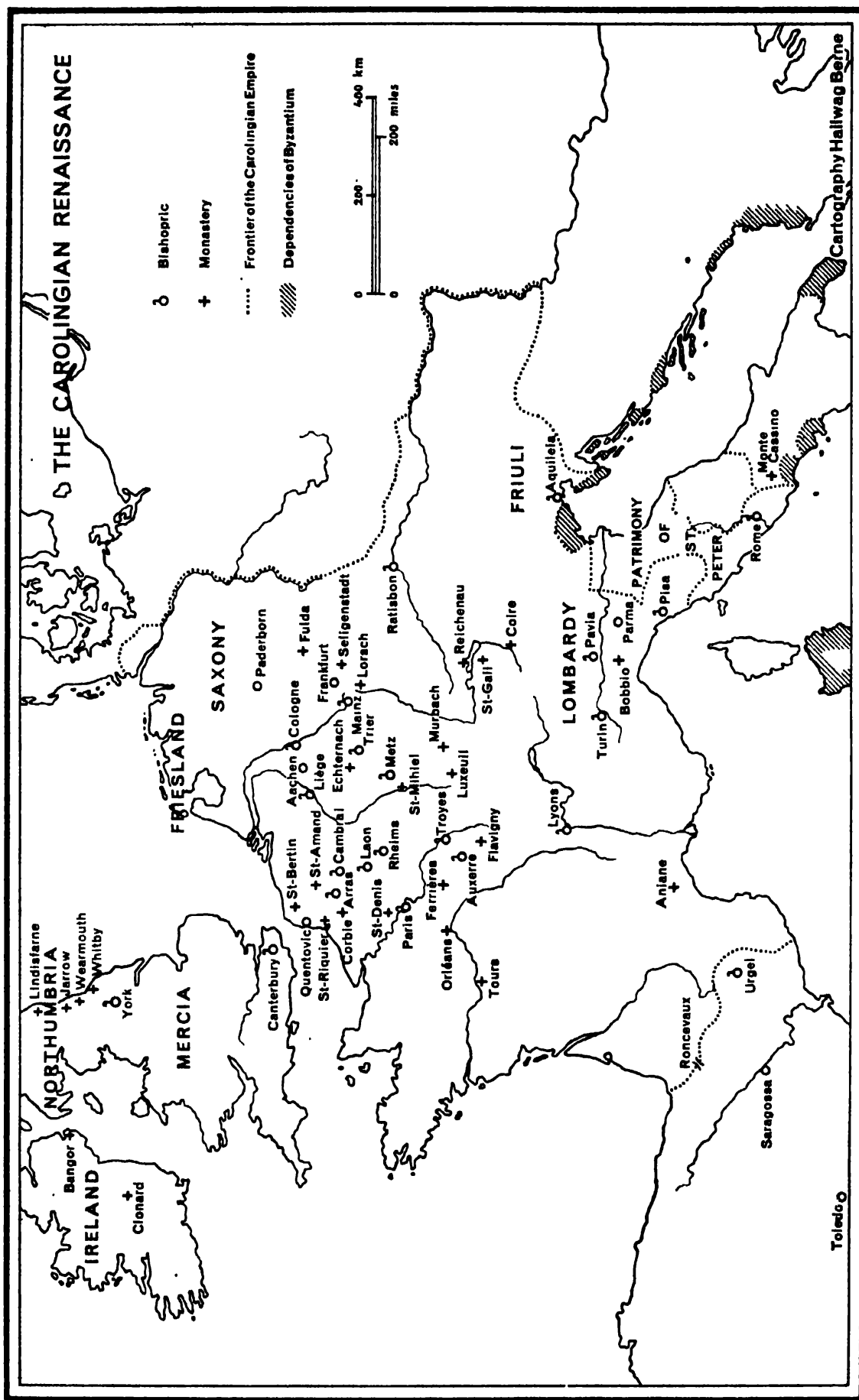
Some fifteen or so expeditions, at the rate of almost one a year, forced conversion on the subjected population, and deportation of the most intractable of the tribes brought it, in the end, to the desired conclusion. With the difficult years of the campaign behind him, Charlemagne was able to proceed to subjugate Bavaria and to crush the remnants of the Avars near the middle reaches of the Danube. He stands as the first founder of German unity.

Charlemagne becomes emperor. In Italy, Charlemagne pushed to their conclusion the enterprises embarked on by his father. As the Lombard king had recommenced intriguing against Rome, Charlemagne in his turn advanced down into the plain of the Po, and, victorious in battle, he had himself crowned king of the Lombards. The papacy found it henceforward a matter of some difficulty to retain its independence vis-à-vis a neighbour so much more powerful than the one it had called on Pepin's assistance to deal with.

Master of Gaul, of Germany as far as the Elbe and of a considerable part of Italy, Charlemagne had imposed on western Europe a political unity it had not experienced since Roman times. (Map XII.) In a much fuller sense than it could be said of the heresy-prone basileus, Charlemagne's was the performance of a real Christian emperor. His achievements included the extension of the Faith geographically, war on heresy, the endowment of churches, reform of the clergy and moral protection of the faithful. It was understandable that, on Christmas Eve, in the year 800, Pope Leo III—prompted doubtless by Charlemagne's clerical entourage—should have had him crowned by the Romans and acclaimed as emperor. There was little that was Roman about the empire thus revived, probably only its name and the legacy of distorted images from its glorious past. The need it met, however, assured it longevity; it continued in existence until 1805!

The testing of the empire. Charlemagne seems to have grasped only imperfectly the implications of his title in relation to his power. He persisted in his efforts to put administration on a more standardized and conscientious footing, setting bishops to work in association with the counts, and sending inspectors out to the counties charged with ensuring the effectiveness of justice and order. But he did not appreciate that he was no longer in a position to share out his states among his children, in the Frankish manner. Only as a result of the successive deaths of several of his sons did he decide to hand on to the survivor, Louis, his territory in its entirety, together with the imperial title (814).

It was during the reign of Louis, known as 'the Pious', that the idea of the empire acquired full weight in the corridors of power. Although Louis agreed to leave two of his sons a small kingdom each, he made it abundantly clear at the same time that their status was subordinate to that of the eldest son, Lothar I, the sole inheritor of the imperial title (817). Behind this authoritatively proclaimed intention, however, it was already possible to detect signs of weakness. The desire to show himself a pacific emperor, together perhaps with a fear of



MAP XII

enlarging disproportionately a domain already top heavy, led Louis to abandon those annual excursions to war which had established the authority of his father. The new status of the clergy encouraged them to assert their independence, and to claim the oft-promised restitution of the landed property which Charlemagne had not scrupled to confiscate in order to confer benefits on powerful laymen. These laymen, in their turn, became uneasy, and refused to accede to the ecclesiastical claims. Louis's authority was inadequate to deal decisively with these developments; when the provisions of 817 in favour of the cherished son by a second wife were cast into the melting-pot again, the four heirs were set at odds in a struggle which was a clear indication of Carolingian decadence.

What explains the rise of the Carolingians? It may be appropriate at this point to recall the factors that had made for the family's rise to power. These included military successes, achieved the more easily in the absence of any powerful or organized force to oppose the Frankish army. An alliance had been formed with the papacy and clergy. The Carolingians had put to systematic good use the ties of vassaldom which constituted one of the origins of feudalism; their companions in combat were awarded lands on a temporary basis only and conditional on the continuance of service. Church possessions, together with successful military encroachments, at first provided the wherewithal for such awards in abundance, but both these sources of supply failed in the reign of Louis the Pious. Charlemagne had begun further to ensure the fidelity of his officials by requiring them to take the oath of fealty and to group part of his army around his vassals.

Are these the factors to be taken, in conjunction of course with those arising from individual character, as the fundamental ones in the rise of the Carolingians? Or does there lie behind them something of deeper import, involving attention, and which has been formulated in general terms of relations between western Christendom and Islam: the 'Mohammed and Charlemagne' problem?

Eastern Influences and the Carolingian Awakening

Henri Pirenne's book *Mahomet et Charlemagne*, when it appeared in 1937, surprised many at first by its juxtaposition of the two names. In the time that has elapsed since its publication, numerous studies have been devoted to confirming or criticizing Pirenne's view. The Carolingian problem is now frequently seen in terms of its relationship to the Arab conquest.

Pirenne's views. Something that the 'barbarian' invasions had not caused, Pirenne affirms, took place as a result of the Arab conquest: in the Mediterranean, which had now become a Moslem lake, 'maritime intercourse with the East ceased from about 650'. The ensuing period is marked by the disappearance from western Europe of oriental products (papyrus, spices, rich textiles), of gold, the medium of international exchange (the Carolingians created a

silver monometallism) and of a whole class of professional merchants who had hitherto more or less survived. The western outposts of Byzantium (Venice, Naples, Amalfi, etc.) and Jewish traders kept a certain amount of exchange going but it was of minor importance. This severing of commercial relations had consequences of immense import—the material impoverishment of western Europe and the development of a purely rural economy, where all the exchange that took place was at small local markets. And paralleled with this came intellectual impoverishment, the abandonment of Latin in favour of local dialects and the retreat of all culture to the circle of a clerical minority. This meant the disappearance of the secular state, the amplification of the rôle of the clergy and the emergence of the feudal system, ‘inexorable consequence of the economic regression’. Such were the principal features of this first medieval state, the capital of which was at Aachen, far removed from the Mediterranean. The attitude of the papacy, as it turned away from Byzantium to proclaim the Frankish king as emperor, served also to deepen and confirm the severance. ‘It is thus true, in the strictest sense, to say that without Mohammed, there could have been no Charlemagne.’

Critics of Pirenne. Attacked from every quarter, Pirenne's views are no longer tenable, or not, at least, in their dogmatic conclusions. Why should the Arabs have interrupted Mediterranean trafficking? Would they, in any case, have been able to? The relations of Moslems with the Christians were far from being confined to a series of hostilities. It is true that between the Umayyads of Cordova and the Carolingians there was continued conflict over frontiers, with the inevitable reciprocal raiding, as in Charlemagne's excursion of 778 against Saragossa, which terminated in the unfortunate surprise at Roncesvaux, and in the establishment of Carolingian frontiers extending to the Ebro and Barcelona (801). But between Charlemagne and the Abbasids, linked by a common hostility to the Cordovan emirs and the Byzantine emperors, there was an ambassadorial exchange and an amity of which Charlemagne took advantage to found a hospice and a library near the Holy Places.

It was, moreover, not until the ninth century that the Arabs gradually won control of the Mediterranean from Byzantium. The difficulties which were very possibly experienced in Mediterranean trade relations should be put down rather to blockade measures taken by the Byzantines against the Arabs around 700. But difficulties did not imply a cessation of trade. The later presence in western Europe of oriental products, deemed by Pirenne to have disappeared from it in the Carolingian period, is very widely attested.

Finally, is it possible to regard the Carolingian era as a period of retrogression for western Europe? The political reorganization described above and the undeniable intellectual and artistic renaissance (undeniable, even though confined to the clergy) would have been inconceivable in a world that in all other respects was experiencing only impoverishment and decline.

Should we then go to the other extreme, and declare with M. Lombard that

'the Mahomet-Charlemagne connection posited by the great Belgian historian wholly retains...its explanatory force only if the direction of it is reversed'? Did the purchasing of arms, wood and slaves by the Moslem world have the effect of replenishing western gold reserves, which had been exhausted by the previous unfavourable balance of trade exchange with the Byzantine countries, thus enabling Europe to resume such trade? In other words, is the Arab conquest to be envisaged as the cause, operative over the Carolingian period, of a resumption, not a breakdown, of Mediterranean trade and, as a corollary, of a general enhancement of civilization in Europe?

The uninitiated reader may have been surprised that such contradictory views could have been sustained. That they have been so is due, of course, to the paucity of the available evidence, lending itself to very different interpretations. The very divergences of interpretation induce a certain scepticism, but they should not be allowed to obscure what is essential.

European economy predominantly rural. Traces of evidence exist of commercial relations between the Carolingian Europe and the Byzantine and Moslem countries; these may be taken as a premonitory sign, but they in no way entailed a modification of the foundations of the European economic structure, which remained rural, based on a very sparse occupation of the land and on rudimentary agricultural methods. The large estates had possibly achieved a measure of progress at the expense of the small ones, but this was to some extent counteracted by the development of the exploitation of small-scale tenures within the large estates. The Paris basin may also have been the scene, thanks to the enlightened researches made by the monks in some monasteries, of certain technical advances. To judge from the polyptychon (inventory) drawn up about 815 by the abbot of Germain-des-Prés, the population in the area around Paris was already very dense, a fact which was sufficient for this territory between the Loire and the Rhine to assume a new importance in western Europe. Everywhere else, cultivated lands stood as modest islands in an enveloping sea of forest and heath. In so far as economic factors lie behind the rise to power of the Carolingians—and, to an even greater extent, behind the precariousness of that power—we must look to this internal evolution, the phenomena of rural history for the main explanation.

The Carolingians and Byzantium. If, in the last resort, the influence of the Arab conquest on Carolingian destinies appears to have been slight, should western relations with Byzantium be considered to have been of more importance? To what degree did these relations effect, in particular, the 'Carolingian Renaissance'? These relations were, in general, very bad. The conferring on Charlemagne of imperial status was at first treated in Byzantium with plain contempt. But a minor war that left Venetia in Charlemagne's hands and, more especially, the Bulgarian threat to Constantinople, forced the basileus to concede recognition of the imperial title to Charlemagne in return for the

handing back of Venetia. The recognition applied, however, only to him personally (812); it was accorded to none of his successors.

Religious issues. Religious relations were of greater significance. Learning only after the event of the restoration of image worship by Irene and basing his policy apparently on a bad translation of the Acts of Nicaea, Charlemagne reacted with violence. He had drawn up by his entourage the *Libri Carolini*, condemning the cult of images absolutely, and attempted to force the pope to accept its conclusions.

Probably in Spain, and in the sixth century, the formula of the Nicene Creed: '(I believe) in the Holy Spirit, the Lord and giver of life who proceeds from the Father' had added to it the words 'and from the Son' (*Filioque*). At about the same time it had become customary to sing this Creed in the course of the Mass. The additional words and the practice of using the Creed in the Mass had spread throughout Gaul, a movement which, unimportant in itself, was a serious threat to Rome's authority, in that it tacitly claimed the right to modify unilaterally a formula laid down by the Ecumenical Council. Rome ignored it, but Charlemagne fashioned it into a weapon and, in a singular reversal of rôles, denounced the Byzantines for heresy in not reciting the *Filioque*. These were incidents of some significance, indicative of the new importance the Frankish clergy and the sovereign had assumed in the western Christianity and of a shift of power within the Church.

The 'Carolingian Renaissance'. These controversies did not, however, mean that there were no Byzantine influences at work in the Carolingian Renaissance. The intellectual and artistic awakening on which this name has been conferred had very humble origins. It arose from the anxiety of Charlemagne and his ecclesiastic entourage to raise the intellectual level of the clergy, then particularly low, by opening schools in association with all bishoprics and monasteries and to impress the faithful by an improved form of worship in a larger number of churches, themselves better constructed and adorned.

Charlemagne had to call in the moving spirits of these reforms from beyond the frontiers of the Frankish kingdom itself. These included the grammarian Peter of Pisa and the historian Paul the Deacon, from Italy; Theodulf, who had fled from Spain, and was made bishop of Orleans and, above all, the Anglo-Saxon Alcuin, a product of the school of York, who became abbot of Saint-Martin of Tours. Alcuin was the author *par excellence* for the manuals needed by the schools, now greatly increased in number, although Charlemagne's designs had, in fact, been only partially realized. The adoption of the Carolingian minuscule, a reform of writing, made for the great legibility of the multiple copies of the manuals and works of ancient scholarship which were to be written in the many *scriptoria*—monastic copying workshops—at Saint-Martin of Tours, Corbie, Reims, Saint-Gall, etc. In addition, written Latin reverted to a purity and correctness that marked its separation from the vernacular.

After Charlemagne's death, a second generation imparted a new meaning to the movement. While the great German monasteries such as Fulda, justly known, thanks to its abbot Raban Maur, as the 'preceptor of Germany', and Corvey, carried the classical culture into Germany, a kind of humanism flowered in what had formerly been Gaul. It is exemplified in the abbot Loup of Ferrières, who showed by his correspondence that he was passionately interested in research and the comparison of manuscripts and anxious that he himself should write well. The awakening is marked by several notable works: the Swabian Walafrid Strabo's *Biblical Encyclopaedia* and botanical poem (*Hortulus*) and the historical writings of Einhard and Nithard, all of them perhaps overshadowed by the philosophical work of Johannes Scotus Erigena.

Erigena. With him the influence of Greece makes its appearance most clearly in this renaissance, an influence which, however, should not be exaggerated. The *literati* scatter liberally through their writings Greek words they have found in the Greco-Latin glossaries. But authors with an intimate knowledge of the language are few and far between, and do not amount to more than certain clerics in Rome and one or two Irishmen. From Ireland came Erigena, who at the behest of Charles the Bald, translated the manuscript of the pseudo-Dionysius the Areopagite, brought over in 827 by a Byzantine ambassador. Erigena's own work, in particular the *De divisione naturae*, reveals his intimate knowledge of neo-Platonism. With him the philosophic and scientific culture of western Europe, based hitherto on Isidore of Seville, Macrobius, Boëthius and the Venerable Bede, underwent its first enlargement. Nevertheless, Erigena remained an isolated thinker, little understood by his contemporaries.

Oriental influences in art. The artistic renaissance bears clearer marks of oriental influence. It was the desire of the emperor and his advisers to encourage a return to classical antiquity. Insufficient knowledge, however, combined with an unevenness of technical ability and the play of regional influences, meant that realization did not exactly measure up to expectation. Architecturally, such buildings as the Palatine Chapel at Aachen are often quoted as being copied from an oriental design: in fact, few things are less certain than that such was the case. More rewarding of study are experiments made on a purely western initiative, which sowed the seed of its own religious architectural formulas (see pp. 808ff.).

Owing to the almost total disappearance of mosaics and frescoes, the decorative art of the period has come down to us primarily through illuminated manuscripts and the minor arts. Despite the line taken by Charlemagne in the iconoclastic struggle, the visual arts showed a marked return to the human figure, which, in the preceding centuries, had been abandoned or stylized. Man is represented with all the liveliness and accuracy permitted by the skill of the artist. So there emerged again, in pursuit of a didactic end, a religious iconography, which, in contrast to that of Byzantium with its concentration on

venerable images of Christ and the saints, assumed from the start a comprehensive character, to remain the distinguishing feature of this western art.

None the less, many details were borrowed from the Byzantine countries. For instance, the treatment of the Descent from the Cross, and the Entombment, seems to have originated from the rock churches of Cappadocia. Certain themes, such as the Fountain of Life, allowed of representation of Hellenic monuments in the classical style. Iranian motifs—the sacred tree, animals facing each other—are also present. These elements were treated, however, in a new spirit. The ‘trend towards a purely decorative style, closely resembling that of Arab art’ (L. Bréhier) had been ‘completely checked’. Finally, while the barbarian Europe, it seems, had as all the Byzantine east, lost the feeling for relief in decoration, an effort is now apparent to emphasize this once more, if not in large-scale sculptures in stone, where technique was not yet adequate, at least in the treatment of ivories (worked according to Byzantine techniques), in the use of stucco and in small bronze statuary. So emerged a distinctive European art.

Italy. Italy is here a case apart; artistically, it remained a Byzantine province. The many buildings in which the first glory of Venice was manifest, early in the ninth century, are for the most part the work of Greek artists. The revival of an art inspired by iconoclasts (see pp. 798ff.), unknown in Rome, is to be discerned in a few rare works which are preserved in southern Italy.

Conclusion

The Carolingian era would not seem, then, to have been the period of decline envisaged by Pirenne. Limited as such advances were to an ecclesiastic minority, it is indisputable that advances were made both intellectually and artistically. The restoration of political authority was no less evident and the imprint of this on European institutions was a lasting one. The Church attained a discipline, a sense of mission, a conviction that independence was necessary and a moral and spiritual effectiveness, all perhaps as yet inadequate but already none the less remarkable.

Europe. The most notable phenomenon of all was the new cohesion of western Europe. Politically, there was the bringing together of states under the aegis of the Carolingians. When that family faded in the course of the ninth century, one or two energetic popes, such as Nicholas I (858–67), assumed the leadership of Christendom, which grew accustomed to this unified direction. Artistically, the characteristic features of a European art make their appearance. This cohesion would seem to have been due for the most part to its own internal evolution. Memories of the achievement of the Romans, a more complete integration of the barbarians with the indigenous populations, the provision by the clergy of a firmer framework, the incorporation of Germania and certain local increases in population—all these factors contributed.

Relation to Byzantium. Byzantium, henceforward, had to deal with a western Europe that was no longer divided and inconsistent. This gave rise to misunderstandings and the east-west conflicts, which do indeed convey an impression of the sort of rupture which was the basis for Pirenne's theory. Deeper investigation, however, throws a different light on the matter. The new cohesion and maturity of western Europe meant that the days of servile copying of the Mediterranean east were over. The west could now go to work to learn from the east, and having assimilated what it had learned, to create a culture of its own.

Carolingian decline. In the second half of the ninth century, however, under pressure from the Northmen, the weaknesses in the Carolingian edifice became apparent. Incapable of really absorbing the Roman idea of the state, the Carolingians exhausted themselves in conflicts over territorial 'partitions', the most notable of which was embodied in the treaty of Verdun (843), regarded by many as the origin of France and Germany as separate states, together with that intermediate zone between them, over which they were later to fight so bitterly. The feeling of unsettlement spread. The flame of the Carolingian Renaissance continued to burn only in the monastic schools, which preserved some rudiments of culture. Its results, however, were not destined to be lost in oblivion.

C. Scandinavian Expansion¹

In the great invasions, the Scandinavian world had no direct part. But Nordic mercenaries did serve under barbarian kings who had established themselves in the Empire. Byzantium especially employed Scandinavian soldiers. The great hoards of worked or coined gold which are continually being found on Scandinavian soil, with their abundance of sixth and seventh-century imperial coins, undoubtedly represent military pay or tribute money. Incapable of grasping their value as money, the Scandinavians regarded these objects as works of art or tokens of a cult. No religious influence, however, found its way north with the mercenaries.

The Vikings on the seas. With the eighth century, there came a real revolution. The relative isolation of the Scandinavians ended when they discovered a new route to the west and south by way of the high seas. The numerous ships discovered in Danish peat bogs, and later also in the princely tumuli of Sweden and Norway, are evidence of the rapid progress of Scandinavian naval construction in the seventh and eighth centuries. An excellent example is the ship found at Gokstad, near Sandefjord in Norway. This measures 77 feet long and 16.5 feet wide amidships, and is built entirely of oak. It used sail supplemented by sixteen pairs of oars. A modern replica of it crossed the Atlantic in the nineteenth century at an average speed of 11 knots.

With surprising rapidity, the Scandinavians became in a few generations

masters of the sea and the major rivers. (Map.) The first Danish parties reached England between 786 and 793, and northern Gaul in 799 or 800. In 844 the range of their activity extended to the Atlantic coast of Spain, and in 859 to the Mediterranean itself. At the same time they were penetrating more deeply into the territories thus opened up. More troops became necessary, and it was soon customary for these to winter *in situ* and, in view of the long absences from home, to take their wives and children with them. Thus what had started as raiding turned into settlement.

Norwegian colonizing activity was directed towards the islands of the north Atlantic. In the sixth century they occupied the Faroes, the only inhabitants of which were then a few Irish hermits, and the Shetlands and Orkneys, which were peopled by Christian Celts. From 795 they settled in Ireland, Dublin later becoming (mid-ninth century) the centre of a principality. Iceland was reached in about 860; Norwegian ships ranged later as far as Greenland (981), and Wineland (i.e. north America) in about 1000.

During the eighth century, the Swedes infiltrated among the still relatively undeveloped Finns and Slavs of the Baltic east. At the beginning of the ninth century, they made their way up the Neva and the Volkhov. From here they pressed on along the Dnieper towards the Black Sea and Byzantium, where their ambassadors appeared in 839 and where their troops attempted an attack in 860. They also pushed on via the Volga towards the Caspian Sea and the Arab world, contacts with which were established towards the middle of the ninth century.

Raiding leads to trading. What stands out most at first about these Viking raids, and what made the greatest contemporary impression, was their savage violence, the havoc they wrought and their appalling and wasteful destructiveness. It has been shown, however, that there was another side to the coin. Pillaging was followed by trading. Quite often, during a raid, a truce would supervene and the pirates became merchants. To make the raids worth while a great part of the loot had to be commercialized, hence the emergence on the coasts of Scandinavia of great emporia, centres of a luxury trade the extent of which baffles even the archaeologist. In the ninth and tenth centuries, at Hedeby, near the present Schleswig, there were exchanges of slaves, precious metals, horses and furs for wines, arms, textiles and glass. In Christian country, the Danish merchants frequented the great Rhenish warehouse at Durstadt. Exchange with the east took place via the Swedish port of Birka, on an island in Lake Malar. Discoveries that have been made of Byzantine and Arab coins seem to plot the routes which they took across Russia.

Mutual influences. These trading centres were gateways for influences from the west—influences which have to be inferred rather than assessed, since the written tradition is at this period largely in abeyance. Through them, certainly, came the process of striking coin. From 823 the first great Christian mission, directed by the Frank, Ansgar, came via Hedeby and Birka. The

influence of this mission, however, was ephemeral outside those marginal cosmopolitan towns. Indeed, the maintenance of the runes and the artistic development that took place (characterized, apart from a few borrowings from Byzantine and Carolingian sources, by the emergence of a style of great exuberance, known by the name of Borre, with its ferocious animal heads protecting evil spirits) were all evidence of the vigour of the national, pagan reaction provoked by such contacts with Christianity.

Scandinavians settling abroad showed an astonishing degree of adaptability, which enabled them to exert a lasting influence in a number of important respects over some of their victims, even while they themselves absorbed aspects of the way of life of the selfsame victims. Such was the course of events in those territories in western Europe which were colonized by the Northmen.

The causes of Scandinavian expansion. The real causes of this Scandinavian expansion remain debatable. The improvement of naval techniques, while it was a necessary condition, was not the root cause. The climatic theory, of a slight warm trend, would account for a population increase, which may have forced the Scandinavians to venture abroad in search of greater material resources, but it remains hypothetical. It is possible, too, that the Arab conquest had led, through the Carolingian domain, now grown rich in its rôle of intermediary, to a commercial awakening in the North Sea countries, and that this may have stimulated the Swedes to seek direct contact with the Moslem world across the Russian plains. This last suggestion, advanced by Sture Bolin, has met with some severe criticism. At the present stage, anything more than hypothesis would be unjustifiable.

D. The Establishment of the Slavs

Factors operative in the Slav world from the sixth to the ninth centuries remain obscure in the extreme, and their very nature accounts for the paucity of the available evidence. Apart from a few marginal instances, the Slavs never entered, as the Germans did in the fifth century, into the framework of organized states, the legacy of which they were to take over, more or less faithfully. In considering the Slavs, we must be content with the few observations that were made, from outside, by Byzantine or Frankish historiographers, although these sources are far from rich and not always reconcilable with one another on what they say. The findings from excavations and linguistic data fortunately make an adequate supplement. All we can do is to trace the outlines of a development which was none the less of major importance. By a gradual process of dispersion from their primitive habitat (see pp. 38-9), the Slav tribes arrived at, and established themselves in, their final settlements. Their way of life and social structures evolved even as they did so and, eventually, as a result of their contact with the Avars and neighbouring states, and, no less, of their reaction against these, a political organization began to crystallize out of their groupings. This development, which proceeded more or less rapidly

according to local conditions, is traceable only with varying degrees of clarity.

Avars and southern Slavs. The southern Slavs established themselves in the Balkan peninsula. Expeditions were first made there at the end of the fifth century by the Sclaveni, a people at that time without organization, who were simply on the move in a search for land, but who were made use of by the Avars as auxiliary troops in their attacks on Thessalonica and Constantinople. After a last failure to take Constantinople in 626, the Avars disappeared from the Balkans. The Slavs, however, remained, having now acquired an enhanced military efficiency and having served an apprenticeship to the sea. By about the middle of the seventh century, theirs was a position of strength through the whole Balkan peninsula; they were settled on the land and a *modus vivendi* with the indigenous Greeks had been evolved. In the north-west, Serbs and Croats were beginning to appear in their train. From being desperately laid waste by the long struggles, the region now entered into a period of relative calm, and the Byzantine influence made itself felt again with the appearing of some rudiments of civilization.

The Bulgars. The eclipse of the Avars also left a place for the Bulgars. The Bulgars were a Turkish people of, perhaps, Hunnic origin, established north of the Danube before the sixth century. Byzantium made use of the Bulgars against the Avars, but, about 679, they found themselves threatened by the Khazars, and, under Khan Asparuch, they moved to the south of the river. There they found Slavonic tribes already possessing a measure of political organization and merged with them. The resultant grouping crystallized into a state, which, with its eye on the nearby straits, became dangerous to Byzantium. Thrace was invaded in 708 and an advance made to the walls of Constantinople in 712. A century later, the Bulgar Khan Kroum crushed the Emperor Nicephorus Phocas, besieged the capital and only narrowly failed to take it in 813. In the meantime, the destruction of the Avars by Charlemagne had enabled this Bulgar-Slav state to expand through Transylvania. In 815 it established its Byzantine frontier. There followed a period of developing internal structure under the khans Omortag and Boris. A whole new social edifice arose, superimposed on the village committee (*zadrugas*), a hierarchy of princes, governors and boyars (owners of vast domains which were cultivated by slaves).

The western Slavs. Of the western Slavs much less is known. The kingdom, organized about the second quarter of the seventh century by a slave merchant named Samo, extended along the Elbe from the Havel river to the Alps, and has long been regarded, perhaps not entirely correctly, as the first Slav state. The Slavs soon came into contact with the Frankish power. In his struggle against the Saxons, Charlemagne had formed an alliance with the Obodrites of the lower Elbe and more or less obtained control over them. By this time the Slavs had formed themselves into groups of tribes, headed by princes (*knaz*). There were Sorabs on the Saale, and, further to the north, Obodrites,

Ljutici (or Veletians) and Pomeranians. Trade developed between them and the Frankish empire, but attempts at Christian penetration of the Slav countries met with no success. The Frankish decline which began not long afterwards enabled the Slavs greatly to increase their excursions west of the Elbe.

Croats, Slovenes and Moravians. Relations were established further to the south as a result of Charlemagne's conflict with the Avars. Frankish armies crossed Bohemia and entered Pannonia, where a Croatian prince, Vojnomir, rallied to their aid and was converted to Christianity. Christian penetration, emanating from the dioceses of Salzburg and Passau, was much more intensive here. But it was not long before the Frankish influence produced a reaction. Ljudevit, prince of the Croats of Pannonia, who at first paid homage to Louis the Pious, later revolted and for some years the Slovenes of Carniola and Styria rallied round him, forming a sort of rudimentary empire (819-22). Not long after this, the Serbs appeared as a unity under Vlastimir (835-60). But the most important fact was the formation of Great Moravia, which its rulers, Mojmir and Rastislav, extended to the Sudeten and Carpathian foothills and across the northern part of the Hungarian plain. Rastislav became a Christian, but, to avoid continued submission to the Franks, turned for his initiation to Greek missionaries.

The eastern Slavs. Finally, the development of the eastern Slavs is particularly obscure. One current historical theory attributes the formation of their first states to the intervention of some Scandinavians (the Varangians) who came from Sweden towards the middle of the ninth century to trade with Byzantine and Moslem countries. Their trade centres on the Volga and the Dnieper formed the nuclei of these states, drawing into their orbit the still primitive and unorganized Slav population. This is a view which Russian historians, from the classical exponent Kluchevsky to the contemporary Grekov, have energetically opposed, citing in support of their view some ancient traditions, which are echoed in the early Russian chronicles of the eleventh and twelfth centuries, certain isolated items of information to be found in Greek and Arab authors and the results of numerous excavations carried out in the vicinities of Kiev, Chernigov and Smolensk. The following paragraph is a summary of the conclusions these Russian historians have arrived at.

The Russian view. The Slavs who transferred themselves, between the second and seventh centuries, from the Vistula region to the region of the Dnieper were not unorganized. Information found in Mas'udi gives us reason to believe that, by the sixth century, a number of their tribes, at that time in the Carpathians, had evolved a kind of military coalition, headed by a Dulebian or Volinian prince. A decisive factor in its formation was the settlement in the marshy, wooded regions of the Russian plain. Colonization usually meant the establishment of isolated farms in what appeared to be the most promising

places. Under the influence of the coalition, the old family clan structure finally disintegrated. The princes, surrounded by their followers (*druzhina*) developed a seignorial type of property ownership, and became the nucleus of a political regrouping. At the same time, through the mediation of the Khazars, established in the south of what is now Russia, a trade with the Byzantine countries grew up, out of which came such market towns as Kiev and Novgorod. This commercial activity spread through into the Scandinavian countries, by routes which can be traced by the hundreds of caches of Arab coins that have been unearthed between the Volga and Lake Ilman and the Baltic region. The arrival on the scene of the Varangians, as merchants or as Swedish soldiers who had been hired by the Slav princes, came simply as a 'rounding-off' of a long process of development. Certain of these Varangians, such as Rurik in Novgorod, imposed their authority on the Slavs. In other cases, the urban regions (*oblast*) preserved their independence. Out of the general unification that took place under the leadership of the people of Kiev was born the first Russian state.

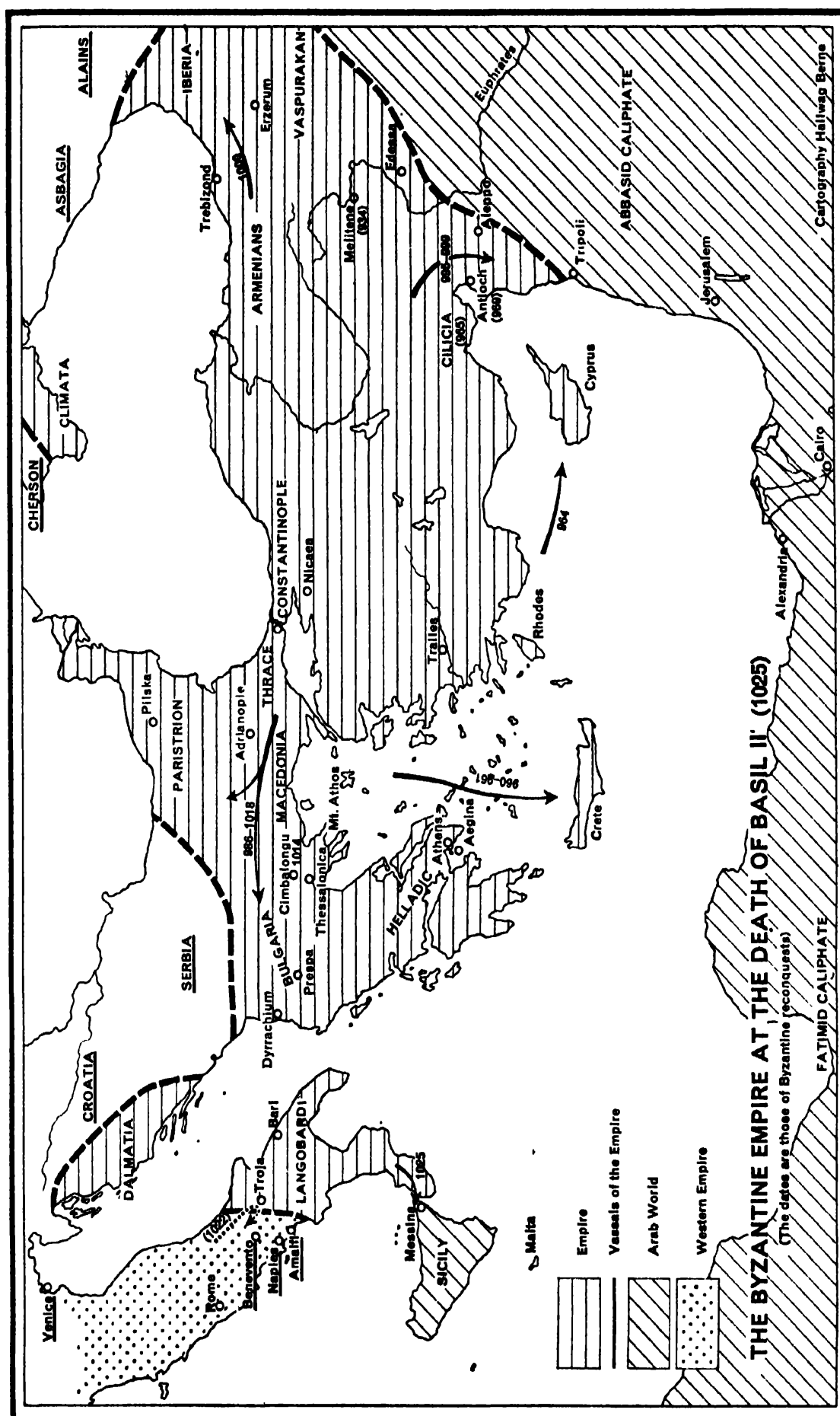
As to the origins and meaning of the term 'Russian' there has been much discussion. It is not certain whether its first application was to the Varangians, or to a particular Slav grouping, before it came to designate all the eastern Slavs. The last designation, at all events, was not effected until later—in the tenth and eleventh centuries.

3. BYZANTIUM AND ITS INFLUENCE IN EUROPE (NINTH TO ELEVENTH CENTURIES)

A. The Recovery of Byzantium

Although it had been diminished by Arab conquest and rent by the iconoclastic dispute, the Byzantine Empire began about the middle of the ninth century to revive. The resurgence was evident in all aspects of Byzantine life. There was political and military rehabilitation, a return of economic prosperity, an increase in the intensity of religious life and a fresh vigour in its cultural activity and diffusion. The first signs of it—a cessation of the iconoclastic conflict, some early military successes and the beginning of great military enterprises in the Slav countries—came during the reign of the second-rate, dissolute Michael III, and preceded the advent of the so-called Macedonian dynasty, which began with the accession of Basil I (867). And the political and military decline that followed the death of Basil II (1025) was accompanied by no diminution of artistic or literary brilliance. (Map XIII.)

The Macedonian emperors. These Macedonian emperors were as colourful as they were diverse. Basil I, founder of the dynasty, came of artisan stock in Thrace and was physically of Herculean proportions. One might describe him as a horseman come to the throne by murder, there to reveal himself a states-



man (867–86). His son, Leo VI, puny and ailing, from the confinement of his palace put out great quantities of treatises and homilies (886–912). Constantine VII (912–59), the emperor-archivist, devoted himself to writing a minutely detailed account of administration and ceremonial and to encouraging scholars and writers, laying his political and military responsibilities on the shoulders of his colleague Romanus Lecapenus. Nicephorus Phocas (963–9) was at once a notable general and an ascetic, passionately devoted to the monastic life; John Zimisce the Armenian was another soldier-emperor, but of greater resource and subtlety (969–76); and Basil II, long given to frivolity and irresponsibility, emerged suddenly as a vigorous defender of the imperial authority and as an effective military commander, although, in no sense, either a theologian or a man of letters (967–1025). They formed a truly epic succession, displaying in different combinations the components of the ‘Byzantine temperament’ and in itself enough to focus attention on this great period of Byzantine history. The uninterrupted succession of these emperors implanted in Byzantine minds the ideal of hereditary legitimacy. The Empire became, as it were, the property of a family, a number of whose members at times shared responsibility, and whose women members, married to successful generals, brought them also into the line of legitimacy.

Military expansion. A similar continuity is evident in the progress of military expansion. On the defensive on every front until the ninth century, Byzantium now took the offensive everywhere. Against the Arabs the first decisive action came from Nicephorus Phocas, who re-took Crete, Cyprus, Cilicia and Antioch (960–1). John Zimisce launched vigorous campaigns in Syria and on the Euphrates, efforts which Basil II crowned with important victories over the Fatimids and the occupation of northern Syria as far as Tripoli (995–9). In the east, Armenia, with the decline of Islam, had regained its independence under a Bagratid ‘king of kings’, and its national genius was finding expression in such works as the universal history (conducted up to 1003) of Stephen Asolik Taroneci. Its independence was short-lived, however, and internal dissensions led to its subjection to Byzantium under Basil II. Basil’s main military energies were directed against Bulgaria, where he earned himself the sinister title of Bulgarecton (killer of Bulgars) (see p. 190). In the west, Byzantine control was re-established over southern Italy.

Legislation. Many of these military-minded emperors were also legislators. First among them was Basil I, who perceived the necessity for resuscitating the ill-comprehended Code of Justinian and bringing it into line with the development of the historical situation. This initiative was followed by the publication under Leo VI of the *Basilics*, a revised version of the traditional law, and of the *Novels*, in which old rules were boldly discarded and legal force conferred on custom. It was reflected also in a revival of legal studies. Leo VI’s reign was remarkable also for the compilation of the *Book of the Prefect*, the articles of which placed under the authority of the urban prefect the great

Constantinople artisan and merchant associations, who were ever ready to take action against any breach of the rules relating to the manufacture and sale of goods.

Material prosperity. The *Book of the Prefect* abounds in details which give evidence of the material prosperity the Empire now enjoyed and of its restoration to economic health. Byzantium was deriving the utmost benefit from the position it found itself in as intermediary between the Christian west and Islam, a role which was given added import when Aleppo, terminus of the Mesopotamian caravan route, fell into Byzantine hands (995). Moslems were encouraged to come to Constantinople and a mosque was opened for them there. Byzantium also prospered in its trade with the Slav countries, the treaties of 911 and 944 opening up the markets of Russia. Byzantium had a traditional pre-eminence in the manufacture of luxury goods, and 'products of Constantinople'—perfumes, silkware, trinkets and so on—were universally sought after. It was a prosperity from which the state greatly benefited; despite enormous military expenditure, Basil II left a treasury exceedingly well filled. The greatness of Byzantium, however, would not be regarded today with quite the same awe that it inspired in contemporary Europeans. To see it in proportion, we must visualize territories extending, at the height of their prosperity, over an area scarcely larger than that of France in the twentieth century, and a population probably of no more than six or seven million people, of whom Constantinople itself could not account for many more than 250,000—a figure, nevertheless, impressive enough for that period.

Religion. Though not very large, the population was a most variegated one, comprising, as it did, Greeks, Slavs and Bulgars, Anatolians, Armenians, etc. At the centre stood the cosmopolitan capital. The main cementing factor of the Empire was thus still the religious one. The emperor had to figure as God's Elect at the head of His Christian people. He was at the centre of a cult—the manifestations, acclamations, silences and prosternations of which Constantine VII carefully catalogued—which addressed itself through him to Christ. Inevitably, the emperor came to make his opinion felt in matters of dogma, to exercise disciplinary authority in the Church and to hold a casting vote in the choice of a patriarch of Constantinople.

Nothing points more clearly to the intensity of religious life in the tenth and eleventh centuries than the vitality of monasticism. The monks moved in a general aura of popularity; laymen frequently chose to end their days in a monastery and to hand over their property to it. The Mount Athos monasteries, most celebrated of all, multiplied, thanks partly to an influx of foreign monks, Italians, Russians and Germans. In the eleventh century the Sacred Mountain was administered by a council of Igumens.

The arts. Artistic activity remained closely linked with religious life. With the victory of the iconophiles, monastic and popular art became more theological

and traditional than ever, copying piously the models furnished by works saved from iconoclast destruction, in particular old Syrian manuscript miniatures. There was also an art of a more official and aristocratic character, in which the themes that had been re-introduced at the time of the iconoclast crisis were retained—plants, animals and scenes of secular life. They were used here in the formal style of classicism, which was fostered by the study of Hellenic antiquities. Thus, with two currents to draw on, the scope of Byzantine art expanded. Churches of a new type made their appearance. They were built on a Greek cross ground-plan, with the thrust of the central cupola taken uniformly along the lateral walls, a style which first showed itself in the N^{éa} (New Church) of Basil I. Vivid-hued mosaics, illuminated manuscripts, doors of finely etched bronze, ivories and historiated draperies combined to give public buildings and private houses a decor that was at once both luxurious and refined.

Cultural activity. In intellectual and literary activity the same currents are to be discerned. The aristocratic trend linked to classical antiquity made itself felt in three waves. First, there was in the ninth century a humanist revival centring round Leo of Thessalonica, philosopher, scholar and constructor of scientific instruments, and Photius, whose chief work, the *Myriobiblon*, is a collection of 280 digests, each a summary of a work with extracts from it. Then, after a few decades during which energy seemed to give way to lethargy, there came, in the second half of the tenth century, a surge of activity, animated by Constantine VII, in which encyclopaedias—historical, agricultural, medical, veterinary, zoological—were produced. This was followed, lastly, by a neo-Platonist renaissance, which expressed itself in, and was fostered by, the restoration of Constantinople University (1042–55); a renaissance of which the outstanding production was the *Chronography* of Michael Psellus. This work, however, remarkable as it undoubtedly is both in the subtlety of its psychological analysis of emperors and their entourage and, even more, in its controlled moderation of style, should not be allowed to eclipse entirely the writings of a doctor like Simeon Seth, who introduced Arab medicine to Byzantium, or of the jurist Michael Attaliates.

There is also evidence of a current of religious literature in the vernacular; lives of saints, such as those written by Simeon Metaphrastes (second half of the tenth century), and religious poetry, such as the *Divine Hymns of Love* of Simeon the Younger (1035). There was also John Mauropous, bishop of Euchaita, who died in about 1080, a friend of Psellus, who took part in the reconstruction of the University, but also produced sermons and the life of one of the saints in the vernacular.

The diversity of these trends is evidence enough of the recovery of equilibrium and vigour that Byzantine culture had made, now that the iconoclastic crisis was behind it. The brilliance of the era was nowhere more strikingly manifest than in Constantinople itself. Enclosed protectively by its impressive

walls, seething with life, basking in the beauty of its churches and palaces, set above the blue waters of the Golden Horn, this was indeed the City of Marvels, expatiated on by travellers from Arabia and eyed with awe and envy by the Slavs and Christians of the west.

Cultural exchanges with Islam. The stabilization of military operations between Byzantium and Islam now stripped the war of its dramatic character and although hostilities persisted almost uninterruptedly through the tenth and eleventh centuries, these did not prevent the growth of relations in other respects, embodying in them a new ideal of tolerance and mutual esteem. One may speculate as to whether or not such contacts with a prosperous and cultivated neighbour contributed to the rise of the Empire under the Macedonians. Particular importance, at all events, attaches to the cultural relationship, easier and more fruitful because both civilizations were built on the foundation of the Hellenistic world. Thus Simeon Seth, the doctor, translated into Greek, or adapted to that language, the medical works of the Arabs, together with the fables of Kalila and Dimna; the Greek scientific vocabulary was enriched by many terms taken from Arabic, a reversal of the course of events in the early days of 'Arab science'. But the Moslems also drew on several occasions on the talents of Byzantine artists and scholars. 140 columns were sent by Constantine VII to the caliph of Cordova, Abd ar Rhaman III, for his residence at Medinat az Zahra; and the latter's successor, Al Hakam II, sent to Byzantium for a mosaicist for his great mosque. The basileus refused, however, to hand over the scholar, Leo of Thessalonica, even though the caliph Al Mamun offered as much as 2,000 gold pounds together with a treaty of everlasting peace. He had too lively an appreciation of that great scholar's services to the Empire.

The hostilities themselves, and the prowess displayed on the frontiers of the two empires, furnished material for an abundant epic literature. Certain works stand out: on the Greek side, there was the cycle of poems about Diogenes Akrites, a semi-legendary hero, whose real adventures probably date back to the mid-tenth century; on the Arab side, the poem of Sayyid Battal, which has come down to us in its later Turkish form. These poems frequently bear striking resemblances, some of them pointing to a common source of inspiration in *The Thousand and One Nights*.

Signs of decline—maritime problems. Even in this, its period of splendour, however, Byzantium was displaying signs of the decline that was to overtake it after the death of Basil II. Stress has been laid, with reason, on the maritime character of the Empire; indeed, it was the reconstitution of the Byzantine navy that made possible the successful counteroffensive against Islam. Moreover, it was maritime trade with Syria, with the Black Sea countries, along the coast and islands of the Aegean, and with Italy, that was the basis of the prosperity of Constantinople and of the great Byzantine cities. Yet this did not suffice to induce in the Byzantines the mentality of the great maritime and

mercantile peoples. As earlier in Rome, commerce was looked down upon; no title of nobility was to be obtained via the sea, and a mariner who made a fortune must make haste to invest it in land. There is a well-known story of the Emperor Theophilus (829-42), who ordered a ship and its whole cargo to be destroyed when, having admired both in Constantinople harbour, he learned that the object of their journeying was to make a profit for his wife! Maintenance of Byzantium's commercial relations was thus mainly due to the activity of foreign merchants, Syrians, Italians, Bulgars and Russians, but they were regarded with mistrust, they were penned in the docks, the duration of their residence was limited and heavy taxes were imposed on them; and it was they, despite the handicaps, who profited by the expanding trade. Reconstruction of the navy had been due to the foresight of one or two emperors; neglect by their successors allowed it to sink again into a sad state of disrepair. The help of foreign sailors then had to be sought and, in return for the loan of their ships, they had to be granted privileges and tax exemptions. The state thus forfeited the chance to grow rich alongside them. Moreover, successive emperors proved incapable of retaining trade when the enterprise of others began to deflect it away from the capital.

The growth of the large estates. Thus such an empire, wide open to the sea, remained primarily a land power. Here the growth of the large estates, both lay and ecclesiastic, constituted a serious problem; for it proceeded at the expense of the smallholdings which were granted to peasants and, in particular, to soldiers and sailor-peasants, on the frontiers and coasts which they were sent to defend. The iconoclast emperors had taken measures against the large estates, particularly where these were monastic properties. But the middle of the ninth century saw them expanding once again, to a point at which the Macedonian emperors were obliged to take action. Romanus Lecapenus constrained the great landowners to restore without compensation the military allotments they had appropriated, and facilitated the repurchase by the peasants of property sold in time of famine, measures which Nicephorus Phocas, who came of a landed family, completed by taking proceedings against the big ecclesiastical estates. During Basil II's reign the Phocas and Sclerus families, with their own private armies at their bidding, revolted, which forced the emperor to adopt a still more stringent policy against their class. Unfortunately the policy did not survive his death.

Thus the peasants were coming in ever-increasing numbers to swell the armies of the great landowners. The situation was clearly deteriorating, unhappily at a time when the Turks were making ready to invade.

B. Slav Consolidation

With the end of the ninth century, the Slav world emerged from the obscurity shrouding its early development. The peoples were by now more or less established on the ground that was to be their permanent habitat and

social evolution, stemming from an agricultural economy, was gradually relaxing the bonds of the old tribal structure. States in the proper sense of the term were appearing, rudimentary and precarious perhaps, but eventually to survive. Their rulers were turning to the great neighbouring empires, and to Byzantium in particular, in search of initiation alike into Christianity and a superior civilization. In its new rôle of educator of the Slavs, Byzantium found a new sphere of influence and, as it were, a renewed moral justification for the reassertion of its Christian, universal character. Despite the efforts of the Slav rulers to prevent this influence spreading to the mass of their peoples, its effect was nevertheless to some extent to weaken their authority, which suffered further blows from the rise of a seignorial class and from the reactions of the peasants. Finally, this Slav world found itself faced with the shock of invasion from Asia. Hungarians separated the northern Slavs from the southern; Pechenegs and Polovci harassed and eventually exhausted the emergent Russian state.

Bulgaria

It was in Bulgaria, Byzantium's immediate neighbour, with a joint frontier established in 815, that Byzantine influence made itself most strongly felt.

Boris. Boris (852-93) was certainly sensible of the necessity for raising his people to the level of the superior form of religion that was Christianity, but he had no desire in so doing to become a Byzantine satellite. In the intricate manoeuvring that resulted, Boris was constrained to undergo baptism in Byzantium (864), but turned afterwards to Pope Nicholas I for advice on the divergences he had noted between Byzantine and western usage. It was from Byzantium, however, that he finally obtained the archbishop whose efforts were to secure for the Bulgarian clergy a reasonable measure of autonomy. The Greek influence in Bulgaria received further impetus from the activities of the disciples of Methodius (see p. 426) who were withdrawing from Moravia; they not only laid down the form of the Slav liturgy, but also invented the Cyrillic alphabet.

Simeon. The forging of these religious links between Bulgaria and the Empire was paralleled by the growth of commercial relations. Bulgaria took full advantage of these relations and began once again to become a serious threat to Byzantium. Simeon (893-927), Boris's son, brought up as a hostage in Byzantium, took up the struggle against the Greeks, extending his dominion southward and, in 924, laying siege to Constantinople itself. The difficulties of this action, and a moving interview with the Basileus Romanus Lecapenus himself, seem to have induced Simeon to raise the siege, though not before he had obtained recognition of his imperial title from Byzantium, and the concession of a patriarchate at Preslav. Simeon was a great builder and a patron of scholars, whom he encouraged to translate many Byzantine works into Bulgarian. He

thus earned the right to the title which historians have conferred on him of 'the Charlemagne of Bulgaria'.

Count Sisman and Bogomil. At any rate, Bulgaria began to decline when Simeon died. His son Peter was still a child, who was forced by threats from Hungarians and Serbs to seek the help of the Basileus. The rise of the great landed estates fostered in the powerful class of boyars an indiscipline that verged, in cases like that of Count Sisman in western Bulgaria, on total independence. Byzantine influences, and the increasing wealth of the clergy, gave rise among the masses to a national and social opposition which expressed itself through the heretical Manichaeism which had been introduced into Thrace in the eighth century. A peasant-priest, Bogomil, emerged as the apostle of this movement, which was strong enough to divide the Bulgarians at the decisive moment of the launching of the Byzantine attempt to conquer Danubian Bulgaria.

Byzantine reconquest. A national reaction, aided by the disturbances that occurred in Byzantium after the accession of Basil II, enabled Samuel, Sisman's son, to build up, from the Danube to the Adriatic, a new Bulgarian empire. But Basil II embarked on a systematic offensive, which after thirty-two years (986-1018) of what was often truly atrocious warfare finally left him master of this Bulgarian state, thus removing the constant threat it had always been to the straits. Bulgaria now became part of the Empire, but the framework of the country's local customs, nevertheless, remained for the most part unchanged. The boyars were absorbed into the Byzantine nobility and the autonomy of its clergy more or less respected. Bogomilism and a certain spirit of nationalism persisted, however, and were to play their part in the regaining of independence at the end of the twelfth century. By the time Basil II had succeeded in crushing it, moreover, Bulgarian resistance to Byzantium had rendered at least one service to the rest of the Slavonic world—it had had time to become strong enough to avert any danger that it might be the victim of any similar Byzantine absorption.

Hungary

The Hungarians had moved from the Middle Volga-Kama region to the steppe which lies north of the Black Sea. Ousted therefrom by the Pechenegs, they came to the plains of Pannonia about the last quarter of the ninth century. A little after 900 they swept thence across the state of Moravia and then sallied out, north and south of the Alps, on swift excursions, on occasion reaching as far as western France. On their agile little mounts they would descend out of the blue on monasteries and villages, the prisoners and the booty taken forming their main means of subsistence. Such a state of affairs prevailed until Otto the Great, king of Germania, won a resounding and bloody victory over them on the banks of the Lech in 955. In point of fact, the raids were already becoming

of rarer occurrence, a growing proportion of the Hungarians beginning to adopt the more settled way of life of the peasant.

Stephen. From 970 it was possible for German missionaries to preach their gospel in Hungary, but it fell to a notable descendant of the national dukes, Vajk (997–1038), to take the conversion of his people into his own hands, to organize an independent church, and to divide the country into *comitats*, or administrative districts. His ability and enthusiasm were doubly rewarded: first, by the royal diadem sent him by Pope Sylvester II in 1001 and secondly, by his canonization, under the Christian name of Stephen. Thanks to him, Hungary took her place among the civilized states of the Europe then in process of formation.

Further evolution. Through the eleventh century, Hungary's rulers showed themselves able to welcome the foreign settlers they needed without any sacrifice of their independence. They even contrived to extend their frontiers to the Transylvanian Alps, and temporarily to annex Croatia. They were the victims, however, of a badly conceived rule of succession, which led to multiple conflicts at the death of nearly every sovereign. Such political instability gave an increasing importance to the landed lords, who profited by it to extract a number of additional privileges. It also furnished Byzantium, Hungary's rival for influence over the southern Slavs, with the excuse for recurrent intervention in the country and even for the establishment there, in 1173, of a prince who had been brought up in Constantinople. Subsequently, the decline of Byzantium was to give Hungary back her independence—as it was to allow Serbia, under Stephen Nemanya (1163–96) and Stephen 'the First Crowned' (1196–1228), to achieve it also. The Hungarian sovereign, however, was obliged to concede to his barons, by the terms of the Golden Bull of 1222, a very great measure of autonomy, sanctioned by the right of recourse to arms.

Kievan Russia

In Russia, trade with the Byzantine and Arab countries had, towards the middle of the ninth century, led to the establishment of a number of trading posts along the rivers, which acted as the country's first organized communities. At about the same time, there appeared in southern Russia tribes of Turkoman nomads, the Pechenegs, whose raids obliged the inhabitants of Russian towns to fortify themselves and to call in mercenaries, particularly Varangians from Scandinavia. Certain of these mercenaries—Rurik in Novgorod, Askold in Kiev—gained control of some of the towns and of the *oblast*, the surrounding dependent urban region (second half of the ninth century). From the grouping of these principalities in the course of the tenth century, Varangians and Slavs combined to form the first Russian state, Kievan Russia.

Kiev. Kiev was admirably situated, at the junction of the Dnieper and an

important tributary, not only to exercise general control over Russian relations with Byzantium, to which it looked alike for commercial prosperity and civilizing influences, but also to direct hostilities against the Pechenegs. In other words, the ascendancy of the princes of Kiev was not due merely to strength and chance. Their régime, however, remained very loosely knit. The *possadnik*, or governor, representing the prince in each *oblast*, enjoyed a large measure of independence.

Relations with Byzantium consisted in the penetration of Byzantine influences into Russia and strong opposition to these influences on the part of the Russian princes. In 860, 907, 941 and 944, the Russians made their attacks on Constantinople. These attacks regularly spread profound dismay through the Empire and, equally regularly, ended in the signing of a trade agreement. Meantime, Christianity was infiltrating into Russia. Probably in 989, Prince Vladimir of Kiev came to Kherson to be baptized and obtained the hand of Anne, sister of Basil II, in marriage. From then on, conversion of the Russian people proceeded, with Vladimir's encouragement. With the spread of Christianity went Greek artistic and literary influence. The first literary productions in Russian, in the course of the eleventh century, nevertheless displayed a vigorous originality.

Jaroslav the Wise. Kievan Russia may be said to have reached its zenith in the reign of Jaroslav the Wise (1019–54), one of the sons of Vladimir. He extended his territory to the north into Lithuania and Livonia, and inflicted a crushing defeat on the Pechenegs, who were no longer to be feared after 1036. He fostered intercourse with Byzantium, even while, in 1043, he launched an expedition against her. He imported architects and painters for the building and decoration of the church of St Sophia in Kiev. He had a number of Greek works translated into Russian, and set about the major task of codifying the law. Russia made its entry on to the stage of international power and the daughters of Jaroslav married the kings of Hungary, Norway and France.

Decline and change. Decline, however, followed hard on the period of glory. Here once more, the absence of an unequivocal and accepted law of succession proved a disadvantage and, in a series of partitions, the Russian state disintegrated. The factors that had made for the grandeur of Kiev were no longer operative; the development of the great landed properties led to the subjection of the free peasants, who became increasingly indistinguishable from slaves. From about 1060 onwards, fresh invasions by the Polovci or the Cumans, from over the southern steppes, severed relations with Byzantium.

A national sentiment indeed persisted; that is clear from eleventh-century Russian literature. But it availed nothing. The energies of the Kiev princes were dissipated in dynastic conflicts and in struggles against the Polovci. In the course of the twelfth century, the mass of the population moved slowly back, either towards the north-west, where the principalities of Galich and Volhynia, on the upper Dnieper and Vistula, took on a new importance; or,

mainly, towards the north-east, and the Russia of Rostov and Suzdal, between the Oka and the upper Volga, where the two princes, George Dolgoruki (died 1157) and Andrew Bogolubski (1157-74), revealed themselves as indefatigable and ruthless colonizers. In these 'refugee' states, the part played by the towns was quite different from Kievan Russia; the economy was almost exclusively rural and power was vested in landed property. From them emerged those Great Russian and Little Russian groupings, which were only finally broken up by the Mongol invasion.

From Moravia to Bohemia

Greater Moravia. Greater Moravia emerged even before the middle of the ninth century and was the first of the Slav states to welcome Christian missionaries—in 862, Brother Cyril and Brother Methodius arrived from Byzantium. These men had been born in Thessalonica on the edge of the Slav countries, they were familiar with the language and they were able to translate the Scriptures into Slav. For this purpose, they developed the first Slav alphabet, Glagolitic. Their use of the Slav language contributed to their success and met with the approval of Rome but, after Cyril's death in 869, the Frankish clergy did everything in its power to hinder the work of Methodius, whose disciples were obliged to fall back to Bulgaria.

The Premyslides. Not long after, Greater Moravia was destroyed by the Hungarian invasion. This separated the northern Slavs from Byzantium and likewise broke the link between Czechs and Slovaks, with the latter being subjugated by Hungary.

The birth of the Czech state is very little known and is surrounded by legends. One of these attributes to a certain Premysl the dynasty which gradually united Bohemia and established Christian churches. However, St Wenceslaus (924-9) soon lost the throne by his unduly timid acceptance of the penetration of the German clergy. His successor, Boleslav I, extended the influence of the young state as far as Cracow but, after hard-fought battle, was forced to become a vassal of the emperor. Bohemia was thus to develop within the Germanic empire. It did, however, retain some autonomy, as evidenced by the fact that the Czech nobility enjoyed the right of electing its sovereign from among the Premyslides. At the end of the eleventh century, the ruler even took the title of king while remaining a prince of the Holy Roman Empire.

Christianization and Germanization. Meanwhile, the Christianization of Bohemia continued. In 973, a bishopric was established in Prague which came under the authority of Mainz. But Bishop Voytech (Adalbert), who brought the Benedictine monks into the country, came up against widespread resistance and Boleslav seized on the opportunity to expel him.

At the beginning of the eleventh century, the Premyslide dukes took up arms against Poland and the emperors intervened to prevent either country

from conquering the other. The disputes over the question of succession which brought into conflict the Slav principle of rights of collaterals and the western principle of the rights of sons, together with Moravia's separatist tendencies, was to provide them with other occasions to keep Moravia in a state of vassalage. Thus, in respect of both religion and politics, the German penetration became more firmly established—that penetration which was to weigh so heavily on Bohemia's destiny and cause it to diverge emphatically from that of Poland.

Poland

The Piasts. The Polish state developed at a later stage. As early as the seventh and eighth centuries, however, the building of small fortified towns in what was later to become Poland revealed the emergence of a political organization of a feudal type. Two of these towns gradually achieved a certain pre-eminence: Cracow, in the south, which was finally encompassed by the Moravian state, and, in the north, Gniezno, capital of the Polanes. The Polane state, under the Piast dynasty, even took in Pomerania between the Oder and the Vistula. It was then that the term 'Polska' (i.e. people of the plain) came into existence. About 966, Mieszko I, together with his people, was converted to Christianity and this conversion strengthened the independence of the young state. As a result, Boleslav I the Mighty (992–1025) was able to expand still further and assume the royal title.

Social progress and the emergence of the states. The emergence of these states was not, of course, a spontaneous phenomenon. They could only come into being when a certain number of economic, social and, unquestionably, mental conditions had been met—technical progress and increased agricultural production, the creation of a feudal group deriving adequate power from large-scale land ownership, recognition of the need for higher forms of political organization. External threats, primarily that arising from German pressure, encouraged this crystallization. In other cases, it came about too soon in the evolutionary process mentioned above and was brought to an abrupt halt. Lack of space makes it impossible to expand on these aspects; but mention must be made of their importance and interest—an importance and interest which they also possess in relation to research on the development of the political and social structures of these emergent states.

C. Development of the Scandinavian World

The Northmen, the scourge of the west in the ninth century, were in the eleventh to play one of the most active parts in its consolidation and expansion, while the Scandinavian world began to throw wide its arms to embrace western civilization. The transition was accomplished in the tenth century in places where there were Scandinavian settlements in which mixed civilizations were growing up side by side. A number of these settlements came together

temporarily with the Scandinavian countries themselves to form a kind of North Sea empire, under the leadership of Canute the Great, king of England,—comprising England, which his father had conquered, Denmark and Norway (1017–35).

It did not, however, survive Canute's death. The Norman duchy of Rouen, founded by the Vikings in Frankish country in 911, had but a small part to play in the story of these cultural contacts; it was gallicized too soon and too completely.

Ireland

The Celto-Scandinavian world—the Isle of Man, the Orkneys and, above all, Ireland—was, on the other hand, the most lively element in these exchanges and the most original. The first stable Viking settlements in Ireland went back to about 830; the kingdom of Dublin lasted until 1170 and the last Ostmen, as the descendants of the Norwegians were called, did not disappear as a social class until about 1285. This prolonged contact was the more productive because Norway and Ireland had certain resemblances in their social structure. It was to the Vikings that Ireland owed its first towns, which have remained her principal ports. The pagan invaders were quickly converted to the Irish church. There are good reasons to believe that Irish poetry influenced that of the Scalds, and that the origins of the eleventh century Norwegian animal art lay in its borrowing from Ireland certain of its most characteristic motifs. At the beginning of the eleventh century, Irish art was little more than a dependent variant of the Nordic style.

England

In England the Scandinavian imprint was particularly evident in the Danelaw, where descendants of the Danish settlers—together with some natives—formed, right up into the thirteenth century, a distinct social category, the Socmen (which, indeed, were also to be found in other parts of England). More than one village there still has a plan, or an apportionment of land, which is reminiscent of Scandinavian usage. Scandinavian linguistic and literary influence made itself felt throughout the whole of England. And even after the break-up of Canute's empire, under Edward the Confessor, representing the restored dynasty of Wessex, the military and administrative frameworks in England remained partially Scandinavian.

England gave to the Scandinavian world no less than it received. It was from England that the Scandinavians took the method of writing in horizontal lines and, in the eleventh century, a Latin alphabet that replaced the runes. The very existence of a literature written in the national language, as opposed to Latin, that was characteristic of medieval Scandinavia, has what is virtually its only parallel in pre-Norman England. And the forms of art that now flowered, from the middle of the tenth to the early twelfth century, on both

sides of the North Sea, give clear evidence of the interplay of English and Scandinavian cultures.

The Scandinavian world's gradual conversion to Christianity was brought about by English missionaries, who had been given their opportunity as a result of these contacts, with the help of certain German clerics. The conversion took place in somewhat disorderly fashion. Christianity was at first strongly 'Scandinavianized' by the Vikings who had been, in the course of their excursions westward, as a pope put it in the tenth century, 'baptized and rebaptized'. But its success marked a turning-point in the history of cultural relations between northern and western Europe. While the now assimilated Vikings gave to the west something of their art of government and their vigour, Scandinavia opened up receptively to the propagators of Christian civilization.

4. THE DARK AGES OF WESTERN EUROPE

A. The New Invasions and Feudal Fragmentation

The interlude of the Carolingian period was followed by the opening of one more chapter in the history of invasions that had been Europe's lot since the latter days of the Roman Empire. The first raiders were Northmen (end of eighth to end of ninth century) but afterwards, since the end of the ninth, came mounted Hungarians. In the same period, profiting from the decline of Byzantine naval power, the Saracens were occupying the Balearic Islands, the coast of Corsica and gradually also Sicily and southern Italy (ninth century). They even established 'pirates' nests' along the banks of the Garigliano and in the wooded heights of the Maures, whence they made incursions into the heart of Christian country.

The resistance in Wessex. Against these various invaders, the numerical strength of whom should not be over-estimated, organized resistance was not impossible. A demonstration of this was given in England by the people of Wessex, long undisturbed by virtue of its geographical situation. When their turn came, about 875, to be attacked by Northmen from north and east, they put up stout resistance under the leadership of the redoubtable King Alfred. Crushed by the first onslaught, Alfred rallied and re-grouped his troops and his fleet and forced the Viking chiefs to become converts to Christianity and to respect the frontier established between themselves and Wessex. The frontier itself he studded with forts, manned by tenants entrusted with military and administrative functions, the thegns. Wessex in his hands became an effective power, strong enough to enable his successors to absorb the Danelaw and unify England, which was to be conquered later by the father of Canute. Alfred, the man of action, was also a scholar, responsible for translations from Latin into Anglo-Saxon.

Resistance on the Continent. On the Continent, the Carolingian state hampered by the vastness of the territory it had to defend, paralysed by the disputes first of the sons of Louis the Pious, then of their successors, and incapable of maintaining a sound navy, lacked just this efficacy. There was no lack of courageous leadership, as witness Louis II, emperor from 850 to 875 and the unwearied resistor of the Saracens in Italy. But the Carolingians were too often content to buy off the invaders. Resistance, when it was offered, came primarily from local authorities, capable of on-the-spot action—men like Pope Leo IV who, after the raid of 845, raised around his Roman basilicas the 'Leonine city', or like Count Eudes, who in 888 led the successful defence of Paris against the Viking siege. On a more modest scale, 'mottes' or mounds, constructions of earthworks and palisades—precursors of the feudal castle—provided the peasants with temporary refuge.

The feudal system. Such conditions as these made the fragmentation of the Carolingian empire inevitable. The estates and territory ceded by the Carolingians to their vassals on condition of the continuance of such services as they were rendering—in fact, that is, for life—took on a hereditary character and came to be regarded by the vassals as their patrimony. And these vassals themselves, although the Carolingian had congratulated himself on binding them to him as the surest supports of his power, became less and less amenable to royal control. The great families of the counts, taking root in the regions in which their sovereigns had established them, ceased to distinguish between state rights and their own interests, considering their office and the land under their administration as an ordinary fief and hence a part of their patrimony. And the local lords came to think of themselves as owing allegiance rather to these counts, or to ecclesiastical establishments, than to the monarch. The personal link of vassal to lord came to replace the obligation of obedience of the subject to the crown. In the face of this intrusion by feudalism, the whole concept of the state lost definition.

The effect of the recent invasions on this process was to hasten it. Its roots lay in an economy which was almost entirely rural and lacking any great current of exchange. The great mass of the population were peasants and, while the old concept of slavery was almost extinct, the position of the free tenant in relation to his master degenerated. The master was no longer merely a landowner, but a lord, a wielder of a part of the public authority, and hence a judge; from this situation arose the new notion of serfdom. The serf was born by hereditary right into a relationship entailing various obligations and sanctions. He did, however, at least retain—as the slave had not—his status as a man and had rights to some extent protected by the common law.

Feudal anarchy. The homage of a vassal to his lord—made on his knees, by placing his hands between his lord's—appeared, by contrast, the voluntary act of a free man. The relationship had almost always a reciprocal side to it, the investiture of the vassal with a fief, which was symbolized by the handing over

of some object, either a branch, a baton, or a lance. What the ceremony consecrated was a set of mutual obligations between the participants: the lord owed to his vassal protection and justice; the vassal to his lord, aid, primarily of a military kind, and counsel, for the maintenance of his court. The vassal bound himself further not to attack his lord, nor to appropriate his possessions. If its principles had been strictly adhered to, the feudal system might have proved to be a sound basis of order and public peace. But there was no such adherence. Vassals and lords failed the more seriously to acquit themselves of their respective obligations in that, because of intermarriage and inheritance, it became increasingly common for a vassal who held a number of fiefs to have several lords. It is not surprising that historians of tenth and eleventh century Europe tend to speak rather in terms of 'feudal anarchy'.

How far is the epithet in fact justified? It is most certainly in line with the extreme fragmentation that took place politically and also in the fields of law, language, and measurement. Feudalism, nevertheless, was something that had not flourished everywhere to the same extent and public authority accordingly had not everywhere sunk to the same level of impotence. Moreover, Europe still had a unifying factor in its common religion. The contrast between the feudal fragmentation and the existence of universal powers is a striking one, though these powers dispensed a greater measure of prestige than of actual power.

B. Kingdoms and Empire

France. West of the Meuse, the Saône and the Rhône, the kingdom of western Francia, in its northern sector at least, covered the zone of feudalism at its best. Monarchical power here had been weakened by the struggles of Carolingians with the descendants of Count Eudes, who had been proclaimed king by the great lords following his heroic defence of Paris. From 987 onwards it was the family of this count which carried the day and constituted over a period of several centuries the dynasty known as the Capetian. Up to the end of the eleventh century, their main concern was with the assurance of the succession. The kingdom corresponded roughly with an earlier community—ancient Gaul, as reunified by Clovis.

Germany. Eastern Francia presents a different case. Political unification there dated only from the conquest by Charlemagne. The duchies that had emerged were at least as much ethnic groupings, corresponding to the old racial patterns, as feudal units. The feudal system was, moreover, much less strongly established than in western Francia. Elected by the nobles and lacking any authority of his own, the king was the fragile bond of union in a system always on the point of disintegrating. Henry I, the Fowler, duke of Saxony, who tactfully contrived to make his reign a carefree one from the nobles' point of view, was able to ensure that his son, Otto, succeed him as king. This was Otto

the Great, under whom was asserted a return to Carolingian tradition; from this reaction originated an archaism, long to characterize this country.

Otto the Great. A vigorous warrior, little educated, but possessed of a vivid sense of his authority and his duties, Otto spent the first twenty years of his reign in reducing the independence of the dukes, replacing them by sure men, relations or friends, and attaching a number of counts directly to himself by a ceremony of homage. In limiting and controlling the power of these secular chiefs, he made use of the clergy, imposing his will upon them by appointing candidates of his choice to vacant bishoprics—his brother Bruno, for instance, became archbishop of Cologne. He invested them by the handing over of the pastoral staff and bestowing upon them special rights, even on occasion endowing them with the full powers of the counts in their diocese. Indefatigable in the field, he defeated the Hungarians by the River Lech (955), and instilled a healthy respect in the Slavs on his eastern frontier. His activities extended to the setting up of Marches beyond the Elbe, and to the establishment in Slav country of bishoprics dependent on Magdeburg.

Mid-Francia and Empire. Serious problems were beginning to arise in mid-Francia, recognized in 843 as the domain of the Emperor Lothar. All the northern part of it, which had come to be known as Lorraine, was being progressively swallowed up by Germania, a process which Bruno was assisting, even while he supported the tottering Carolingian authority in the west. Further south, the king of Burgundy, a minor, had to be taken under Otto's protection. In Italy, descendants of the Carolingian counts were disputing among themselves the title of king, to which from 924 they had ceased to add the title of emperor; while, in Rome, the local aristocracy wrangled over the throne of St Peter. There was a vacuum crying out for someone to step in and fill it. Having been asked several times to intervene, Otto at last had himself crowned king of Italy and then received the imperial consecration with impressive ceremony from the hands of the pope (962). This restoration of the imperial title, which was suggested by the almost legendary example of Charlemagne himself and had been led up to by Otto's military and political successes, had been forced on him by the necessity to control in Rome itself the Church to which he looked for support in Germany. It conferred on Otto rather more obligations than powers, because it implied a responsibility for the protection of the whole of Christendom (Pl. 3, a) and raised again the question of relations with the basileus. It contained the seeds not only of the brilliant destiny, but also of the internal conflicts, of the Germanic version of the Holy Roman Empire.

C. The Church and Feudal Society

Responsibilities of the Church. It was in its character as a Christian organism that the gradually extended old Romania acquired unity. The Church took

over tasks abandoned by the states, in particular the maintenance of a minimum of law and order. Councils and bishops reminded the subject of his duties and stressed the sacred nature of oaths, such as that binding the vassal to his lord. The regions most lacking in a ruling authority, southern France and mid-Francia, witnessed the emergence, at the end of the tenth century, of the movement for the Peace of God. The councils began by making outcasts of any who violated Church asylum, attacked defenceless clerics, or took the goods of the poor. But the question of sanctions had to be faced. The lords were compelled to swear the oath of peace before a great popular assembly, and the leagues of peace formed themselves into a militia for the punishment of all who broke their vows. Eventually the idea was conceived, not only of protecting non-combatants, but of controlling the fighting among the knights themselves. God's truce was proclaimed in Catalonia, in Provence and elsewhere, covering certain periods of the week or year. In the eleventh century the movement became widespread—with what degree of effectiveness it is, at this date, difficult to assess.

Crisis in the Church. The Church itself was passing through a serious crisis. The clergy, recruited from a rural society, ignorant and uncultivated, showed itself only too often incapable of rising above the level of the mass of the faithful. This was no new state of affairs. But the ninth and tenth centuries saw a marked reaction against the practice of two particular abuses. First, there was an increase in priestly incontinence, in the name of Nicholaism. Some priests lived with concubines, others married and tried to bequeath their livings (even their diocese) to one of their children. Secondly, and no less serious, there was simony, the practice of trading in sacred objects, a practice of which Simon the Magician is said to have been the first to be guilty. By Canon Law, a bishop had to be elected by the clergy and worshippers of his diocese and parish priests had to be ordained by the bishop, on presentation by the patron of the parish. In fact, it was more often the latter, the local lord, who selected the parish priest at will from among his tenants, and gave him his church, on occasion in return for a monetary consideration. Bishops likewise were designated by the sovereign or—as feudal decentralization advanced—by the dukes or counts, who invested them at once with their spiritual office and the patrimony of their church, as if it were a fief. Selection for such office might be inspired by religious motives, but greater weight was too often attached to the acquiring of a trusty and effective vassal, a policy which Otto I adopted systematically. Priests could also buy themselves a diocese or a living, counting on recuperating the outlay later in fees for baptisms, burials, etc.

The monasteries did not go unaffected by the crisis. Many of them were destroyed by the invasions and their occupants dispersed. Others, seen as profitable livings, were handed over to lay abbots who set a bad example of lax habits. It is not surprising that the movement for reform should have emanated from the regular clergy, always unmistakably superior to the secular

priesthood. The monasteries of Brogne and Gorze, in Lorraine, became, at the beginning of the tenth century, centres of strict adherence to the Benedictine Rule and monks were summoned thence to undertake the reform of a number of monasteries in Germany.

The monks of Cluny. The most remarkable and lasting of the reform movements was that of Cluny. Founded in 910 by William the Pious, duke of Aquitaine and count of Mâcon, the monastery of Cluny was dedicated by him to the apostles Peter and Paul, its association being thus directly with Rome. Its freedom from 'all yoke of earthly power' was asserted and its liberty assured to elect its abbot without interference and to dispose of its property as it chose. Obedience to the Rule of St Benedict, restored to its original form, and the persistent and passionate activity of such remarkable abbots as Berno, Odo, Maieul, Odilo and Hugh brought a rapid extension of the Burgundian monastery's influence. The abbots of Cluny were invited to effect the reform of many monasteries and, the better to ensure the durability of their influence, it became customary to associate such institutions formally with Cluny, which found itself thus at the head of a sort of 'monastic empire'. Developing principally in France, but also in Italy, Spain, England and, to a relatively small extent, in Germany, this empire comprised, at the beginning of the twelfth century, over a thousand religious houses. The old Benedictine abbeys had been autonomous; Cluny was the first monastic order, an institution of Christendom and, in Christendom, functioning strongly as an influence making for unity. Maintained by the work of the peasants who lived on their domains, the monks of Cluny devoted themselves primarily to a brilliant display of the cult and to the copying of manuscripts. Engrossed as they were in these spiritual tasks, they could practise asceticism but only in moderation.

The problem of lay intervention. Such reform, however, even though a number of bishops were supplied by Cluny, had but little effect on the secular clergy, whose indifferent quality was the more evident by contrast. Efforts on the part of isolated prelates lacked effectiveness or continuity. The reformers, particularly in Lorraine and Italy, began to see the problem in terms of institutions. They saw that lay intervention was at the root of the trouble. It was uncanonical that laymen should designate the recipients of ecclesiastical office; scandalous that they should have the power of investing them with a spiritual office, that at the homage ceremony the cleric should place his pure hands in their blood-stained ones, and take an oath to them; wrong that for benefits which only God could confer, he should have to render feudal service. The whole principle of investiture was to be condemned.

These reformative ideas crystallized and were articulated only gradually. Matters proceeded with less urgency because several of Otto I's successors were emperors of piety, embodying the dream of reform achieved via the temporal power. They chose good men to be bishops and intervened beneficially in the troubles of Rome to make sure that popes of real merit were

enthroned. But their good work was always liable to be interrupted by the accession of a ruler of less principle. Happily, and even more importantly, the popes who owed their position to them were men of just such a calibre as to restore to the papacy its moral prestige and its reforming vocation. So dispute already was foreshadowed between pope and emperor in the investiture contest.

D. The Development of Mediterranean Relations

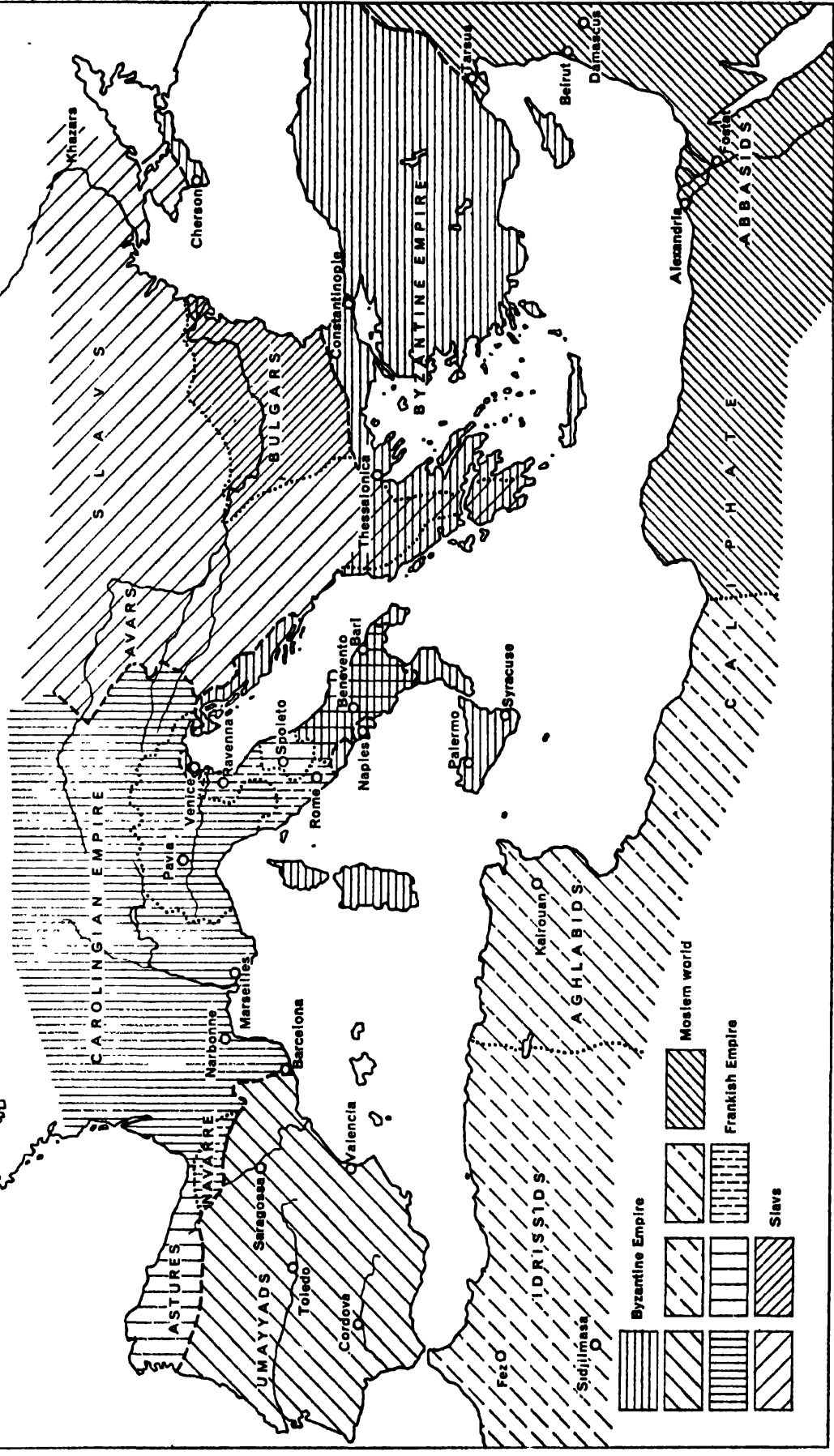
The extent, and the significance for western Europe, of Mediterranean relations have been, as far as the whole of the earlier period is concerned, a matter for discussion and hypothesis. As from the end of the tenth century, it becomes possible to make statements about them with certainty. The scenes of both military and more peaceable forms of contact were now principally Spain and Italy. (Map XIV.)

Warfare in Spain. Moslem expeditions were frequent causes of trouble to the peace of the Christian states established in the north of Spain. The country there was held almost continuously in a state of semi-subjection, without ever being completely conquered, even when the Moslems were led by Abd al Rhaman III. When the pressure was relaxed, the Christians were in their turn able to push into Moslem country and gradually to extend southwards. The states involved were Asturias, which settled its new provinces with Mozarabs as far as the Douro counties north of the Ebro and became the kingdom of León the Carolingian, which achieved independence by virtue of their relations with the Frankish state and a growing maritime trade, and began to emerge as a unit capable of individual initiative; and Navarre, which let slip the opportunity of becoming the unifier of the Christian states for which its central situation would seem to have destined it. The attacks launched by Mansūr on Barcelona (985), Coimbra, León and Compostella (997) severely tested these little states. But after Mansūr's death (1002), events soon took a different turn. The dissolution of the Cordovan caliphate and the conflicts between the *reyes de taifas* (i.e. kings of the principalities) gave Christian military contingents the opportunity for highly advantageous intervention.

Intercourse with Moslem Spain. It is of prime importance to note at this point the relations established by these Christian states with Moslem Spain. Religious hatred had not yet set them in fierce opposition; indeed, certain of the kings of León had their sons educated there. From Moslem Spain, too, came the Mozarab monks who in the tenth century turned many of the northern monasteries, such as Ripoll, into centres of culture. They also established relations with the Christian west through the organization of the pilgrimages to Compostella, where the remains of St James the Great were thought to have been discovered in the early ninth century, and through the infiltration of monks from Cluny summoned to reform the monasteries in Catalonia and Navarre.

Cartography Hallwag Berne

THE MEDITERRANEAN A.D. 800



MAP XIV

From these beginnings, Christian Spain was eventually to emerge in the rôle of civilizer.

Moslem influence in Italy. The scene in Italy was more complex. Each of the conquests that had followed one after the other from the sixth century onwards—Byzantine, Lombardic, Frankish, Arab—had left its traces. About the tenth century there were two major influences at work: that of the Byzantines, who, since the days of Basil I, had been busy rehabilitating a Byzantine Italy, extending as far as Apulia, where hermits driven from Sicily and Calabria (such as St Nil of Rossano) were fostering a lively coenobitism according to the Basilean Rule; and that of the German sovereigns, beginning with Otto I, who came to Italy to take up the Carolingian succession. Byzantine influences were to continue widely active in Italy and, via Italy, to make themselves felt also in Germany. The Byzantines, however, proved incapable of putting down the Moslem threat and Otto II, who went out to fight the Saracens in Calabria, met with decisive defeat (982). The elimination of the Moslems was to be the work of the contingents of Normans who, a short time before 1020, began to make their appearance in southern Italy and of Italian navies.

Naval power and trade. Indeed, it had been lack of co-operation on the part of these navies that had up to this point paralysed anti-Moslem action. The ports of the Italian Christians were more interested in the maintenance of Moslem commercial relations, which produced their prosperity. The merchants of Amalfi had bases in Sicily and ships going to Spain, north Africa and Egypt, while the Venetians, in defiance of a Byzantine interdict, supplied the Moslems with slaves, wood and arms. The other great focus of commercial activity was, of course, Byzantium itself, where Amalfi and Venice had their merchant colonies, under the imperial eye and subject to imperial pressure. In 992, however, in return for the assistance of Venetian ships in transporting his troops to Italy, Basil II granted the Venetian merchants certain privileges. It was at this time that Venice founded her first Adriatic empire and to Venice (and Milan) German merchants now began to make their way across the Alps. It was thus not Spain and Italy alone that felt these oriental influences; through those countries they were diffused throughout western Christendom.

Political and religious relations. The political and religious parts of these influences can be dealt with clearly and briefly. Otto I had wanted to have himself recognized as emperor by the basileus; by tortuous negotiation, interspersed with actual hostilities, he at least gained for his son Otto II the hand of Theophano, a daughter of Romanus II (972). The offspring of the marriage, Otto III, emperor from 996 to 1002, bore, not without some strain on his stability, the signs of Greek ascendancy—the Byzantine preoccupation with etiquette, vague dreams of the Universal Empire and a tendency towards mysticism, which was fostered by retreats to the feet of St Nil.

Where religion is concerned, the tale is more of ignorance and conflicts

rather than of influences. Christians and Moslems in Spain displayed a mutual toleration, but their knowledge of each other in the religious respect was, despite the studies of some Moslem scholars, minimal. The Roman and Byzantine brands of Christianity seemed increasingly two separate worlds closed to each other, mutual ignorance breeding hatred and contempt. The peremptory tone of a pronouncement by the pope on the choice as patriarch of the lay scholar, Photius (858), at a time when Rome and Byzantium found themselves competing over the evangelization of Bulgaria, sparked off a violent quarrel, and turned against the pope many within the Byzantine Empire who had regarded him hitherto as an almost wholly useful counterweight to imperial influence.

Economic intercourse. Economic exchange was very different in its consequences. Italian merchants increasingly took charge of it. In the oriental market places, more especially in Constantinople and Alexandria, they met techniques and maritime and commercial usages much more advanced than their own. Only a very intensive study, made almost impossible by the scarcity of the evidence, would make it possible to assess accurately the extent and significance of Italian borrowings from this new world. But the western naval technical vocabulary—almost completely oriental in its origin—would seem to indicate that Italian merchants used vessels built on the model of Byzantine and Moslem ships. One theory is that the idea of the ‘merchant colony’—the independent, permanent settlement within a foreign country—came from China, whence we can trace the derivation of the Arab *funduk*, from which comes the Italian *fondaco*, a warehouse. It may also have been the case that, in matters of credit and banking, the Italians learned from the Moslems certain of the procedures relating to partnership, the transfer of capital, etc., which were to assure them such a long supremacy in western Europe. *The Maritime Law of Rhodes*, a compilation of Byzantine nautical law, drawn up, probably, in the seventh and eighth centuries, lies behind the practices observed in most of the Mediterranean ports. The earliest of these borrowings from eastern law may date from the tenth century.

The medical school of Salerno. In the revival that took place in European intellectual and artistic life, oriental influences are more unequivocally traceable. The part played by Italy and Spain in the transmission of them is clear. In Italy, the major item is the development of the medical school at Salerno. Since Roman antiquity, Salerno had been a health resort and the medical tradition had persisted and had been gradually enriching itself since the middle of the tenth century. When the Jew, Shabbethai ben Abraham ben Joel, better known as Donnolo, was taken a prisoner to Palermo in 925, he learned Arabic there, and on his return to Italy wrote his *Precious Book*, a list of 120 drugs, mainly botanic. Terms of Arab origin in this, however, were few. Arab medicine really began to make its influence felt at Salerno in the middle of the eleventh century.

Gerbert. In Spain, the first contacts were made about the middle of the tenth

century. In 953, John, a monk from Gorze, was sent as Otto I's ambassador to Cordova. In the course of his three years there, he met the Mozarab bishop, Recemundus, and brought back some manuscripts, which made Lorraine one of the first centres for the diffusion of Arab science. More fruitful still was the sojourn of Gerbert. Born in Aurillac about 940, entrusted to the care of the count of Barcelona and, by him, to the bishop of Vich, he spent two and a half years in Catalonia, working primarily in the extensive library at Ripoli. On his return he taught in the school at Reims, but maintained his contact with the Catalan scholars and requested works to be sent to him. His career led to his becoming the tutor of Otto III and eventually to his ascending the throne of St Peter as Pope Sylvester II (999–1003). To his influence may be attributed the introduction into Europe of the so-called Arabic numerals and of the astrolabe. The eleventh century saw a great increase in the number of contacts thus made.

Byzantine and Moslem artistic influence. The pattern of oriental influences in the artistic field is a particularly complex one. Italy was a Byzantine province, unmistakably so in the south, where the cells of hermits were decorated with rustic paintings, in Venice, where Greek artists worked at the first church of St Mark's and then on the Torcello cathedral, at Monte Cassino, where their fellows were summoned to adorn the monastery which had been rebuilt in the eleventh century, and in Rome. Certain of these influences were transmitted beyond Italy, to the Germany of the Ottos, for instance, where they are in evidence in the Greek-type ivories and miniatures. In Spain, Mozarab art underwent quite strong Moslem influences, witnessed to, particularly in Asturias and León, by one or two small churches, modest in conception, but very characteristic in their horse-shoe arches, their capitals and, sometimes, their rubbed vaulting. There are also some fine manuscripts, certain of which, illustrating the Apocalypse, were to be a source of inspiration for the first sculptors of southern France.

Thus the European Dark Ages—a period of rural economy, feudal anarchy and cultural mediocrity—were also seminal ones, in the course of which, through closer relationships with the Mediterranean east and, to no lesser extent, through a slow process of internal evolution, the ground was prepared for the rise of a new civilization.

NOTE

1. The authors are greatly indebted here to an article by L. Musset [*Journal of World History*, I (1953) pp. 72–90; 'Influences réciproques du monde scandinave et de l'occident . . . au Moyen Âge'] from which certain sentences, in fact, have been literally transcribed.

CHAPTER IV

ASIA, THE ARABS, AND THE AWAKENING OF EUROPE, FROM THE TENTH TO THIRTEENTH CENTURIES

I. DEVELOPMENTS IN ASIA

A. The Chinese Orbit from the Tenth to the Thirteenth Centuries

THE period from the tenth to the thirteenth century is marked by the stabilization of the medieval barbarian empires, by their gradual expansion in the direction of agricultural land and by the sudden irruptive appearance of the Mongols. A first stage saw the arrival of the Karakhanids in the western steppes and of the Kitans in the east and the emergence, war and threat of war notwithstanding, of the Sung culture in China, the Koryo in Korea and the Heian in Japan. The second stage was marked by the emergence of the Tunguz Jurchen and their Chin empire, which forced back the frontier of China, the occupation of central Asia by the Karakhitai and the advent of the Mongols, who weakened the civilized world and drove back the China of the southern Sung, but failed in Vietnam and Japan. The third stage was the tidal wave of the Jenghizkhanids, who swept across all the Asiatic territories of the continent, from the Black Sea to the Sea of Japan, and represents the barbarian zenith.

New Barbarian Empires: Karakhanids and Kitans

In their occupation of eastern Turkestan, the Uyghurs had Turkicized the Indo-European countries, but their creeds, Buddhist or Nestorian, had worked to preserve in these countries the old traditions and to prevent alienation from the world of China. Matters were otherwise under their successors, the Karakhanid Turks. Having dispossessed the Qarluq of the region of Issik-kul and seized the throne of Kashgar, they converted the country to Islam. By successive stages up to the beginning of the thirteenth century, the whole of Kashgaria was won for the new religion. Moslem solidarity, however, did not efface the old antagonism between Turks and Iranians, and Iranians did not pass into the camp of caliphs and sultans. Central Asia had at this time three masters: the Samanids who ruled eastern Iran, Khwarezm and Transoxiana; the Ghaznavids who had made themselves independent on Afghan lands; and the Karakhanids, suzerains of the two Turkestans. Periodically, then, the old territories of the former khanate of the western T'u-chueh were reassembled and dismembered. From these, the Seljukids set out to overthrow the Samanids and rule the whole of western Asia. The Karakhanids had always to be on the

alert to prevent encroachment by their dangerous neighbours. Their eastern front, on the other hand, was covered by the vassal kingdom of the Buddhist Uyghurs. It was nevertheless from the east that danger came, for the collapse of the neighbouring empire of the Liao had unexpected repercussions.

The Liao in eastern Asia. For two centuries the Liao had been the most powerful barbarian empire of eastern Asia. Having entered Peking in 947 at the invitation of the Chinese to drive out a foreign dynasty, the Liao had taken the interloper's place and the founder of a Sung dynasty failed to dislodge them. The two armies mustered approximately equal strength and victory went first to one side and then to the other. The arrival of the Tangut, who founded the Hsi-hsia kingdom of Kansu and cut the Chinese road to central Asia, induced the Chinese to end the war. Peace was signed in 1004; the Liao retained Peking and the north of northern China and now turned their attention to the neighbouring kingdoms of the Uyghurs and the Koreans. But for centuries China, having lost the intercontinental land routes, was to be cut off from the western world. The Kitans, or Kitais, gave their name to northern China, known from this time as Cathaya, or Cathay, by the travellers of the Middle Ages, while travellers in southern China called that country Sin, or Mangi. Not until the seventeenth century was it realized that Cathay and China were one country.

The Sinicization of the Kitans. Such a misapprehension could only have come about as a result of the profound Sinicization of the Kitans. They had, from the moment of the foundation of their empire, abolished tribal organization, dividing their territories into five regions ruled from five capitals, and each of these, Chinese-fashion, was sub-divided into prefectures, sub-prefectures, and districts, or into military provinces and fortified towns. Each region supported itself on its own taxes, only the tax on alcohol going to the seat of empire. The affairs of the stock-rearers, Mongol, Turk, or Tunguz, were looked after by an administration in the northern zone, while a southern equivalent concerned itself with the Chinese territories. The central authorities, surrounded by Chinese advisers, applied the administrative machinery of the defeated people, with courts and ministries, a similar form of censorship and a similar department of historiography. This very centralized system delegated power to local authorities in the north and to the great Chinese landowners in the south. This division corresponded to the economic activity of the two regions; the north devoted itself to stock-rearing, the south to agriculture. Despite progress in agriculture, horse-breeding remained the main resource. The Kitan tribes performed an onerous task; they supplied horses for the entire army, for the postal and transport services and for the great court hunts; and none of these imposts exempted them from paying the capitation tax. The lot of the Chinese was harder still; in addition to handing over half their harvest and making payments in kind, they had to pay, in silver, a tax on houses and agricultural implements. The working of the land was in the hands of private syndicates and public authorities, on a basic system of farming out

within the large estates. The heaviest work was done by families of slaves, but the laws governing their position were liberal. They might, it is true, be put to death almost with impunity, but they could have their suits tried by magistrates; they could buy their freedom and they had the right of appeal to the authorities. In addition to the standard impositions, the Chinese were forced to provide labour for the building of towns, palaces, roads, and canals. The Kitans also made good use of Chinese craftsmen and artists. A number of them made their mark in Chinese letters as poets, authors, and historians. They also invented a script in which they could write their own language, but it was not until 1922 that stelae were discovered which enabled a start to be made on the work of deciphering this script.

In spite of its strong organization and the efforts made to build a civilized society, the power of the Liao was constantly undermined by wars and revolts. Tibetan and Korean vassals were the most organized and most recalcitrant. The Tibetans were brought to heel in 1050, but the Koreans led an almost completely independent existence. Internally, some of the tribes, such as the Tatars, were in constant rebellion, adding fuel to the rivalries at court. One of these tribes, the Jurchen of Manchuria, rose in 1115 and proclaimed its chief as emperor of the Kin. The Chinese saw this new empire as a valuable ally in their struggle to throw off the yoke of the Liao tyranny and to recover their lost lands. Not for long however; the Sung sovereigns naïvely failed to foresee that, true to the old pattern, the Kin would step into the shoes of the Liao and reduce Chinese imperial territory still further. On the other hand, Sung China still represented a force which was not within the power of the Kin entirely to overwhelm.

The Crystallization of National Cultures: The Sung, the Koryo and the Heian

In China the sovereigns of the Five Dynasties, in constant rivalry, had had to increase their armies and hence the burdens, already heavy, to be borne by the peasantry. In 960, taking advantage of the general weariness, an officer of the palace, Chao Kuang-yin, organized a mutiny, seized power and founded the Sung dynasty, establishing his capital at Kai-feng. In 980 he completed the conquest of the kingdoms of the south, bringing under his authority the whole empire, save for the very northernmost provinces, which remained in the hands of the Kitans, western Kansu, and the Indo-Chinese provinces. The peace treaty with the north, in 1004, cost him a mere 2 per cent of the imperial budget, but the military operations had proved expensive, mainly in terms of internal expenditure. To rid himself of the power in the hands of the former military governors, the new emperor, T'ai-tsu, had demobilized the provincial troops and maintained an imperial army that grew from 300,000 to 1,200,000 men. Drawing on all possible resources, the emperor was able to raise the budget from 22 million strings at the end of the tenth century, to 150 million in 1021. The mines, too, were prospering and yielding thirteen times as much silver, eight times as much copper, and fourteen times as much iron, as at the

beginning of the eleventh century. But expenditure mounted steadily, especially after the advent of the turbulent Hsi-hsia Tanguts in 1038. The pastoral lands in the north were lost and all horses had to be bought at market prices. The reduction in the number of mobile troops was, however, compensated for by the adoption of new weapons, including explosives such as grenades and bombs, which were in use at the beginning of the eleventh century and commonly so from 1044. The first problem facing the Sung was military and this soon brought in its train allied problems which were agricultural.

The organization of landed property, the villa estate system, which had been established at the end of the T'ang period, now underwent a great extension. The country estates had changed from the purpose for which they were originally intended to become agricultural units, which included the house of the estate owner, which was a sort of manor (*chuang-yuan*), the buildings of the tenants (*k'o-fang*), fields and gardens. The working of the estate was generally in the hands of a manager or bailiff (*chuang-li*), who was responsible for the planning of the crops (and probably for the recruitment of labour) and for harvesting and marketing. The tenant farmers handed over as rent about half the harvest. The system certainly made for a more profitable exploitation of the land, but at a heavy cost to the peasants, who lived a life of abject poverty. Alongside the private estates had grown up public ones, as well as others belonging to monasteries. The first consisted mainly of fallow land, the workers of which were exempt from tax, paying only rent. The monastic holdings, in spite of decrees of secularization, remained very considerable. In the twelfth century the allotment to a member of the clergy was four times that of a private individual.

To finance military expenditure the Sung turned to the new resources promised by commerce. In the period of the Five Dynasties this had developed considerably in consequence of the gradual shift southwards of the economic centre of gravity. In the middle of the eighth century the Yang-tse valley population was no more than 40 per cent of the total for the country as a whole; at the end of the thirteenth century it was more than 85 per cent, while the total number of inhabitants went up from twenty to sixty million. The rich deltas of the south became the great rice-fields, making for a certain specialization of production. A planned national economy took shape, with local specializations emerging as a result of the interdependence of one section upon another. The Huai basin lived by the export of tea, salt and silk; the coasts of Chekiang and Fukien by the exchange of fish, minerals, tea and salt. The lines of commercial contact were maintained and extended by the merchants, who, from being useful intermediaries, in a short space of time made themselves the exploiters of producer and consumer.

To obtain its share of trade profits, the state instituted monopolies and taxes on transactions. This course made necessary a centralized authority, well equipped with organs of administration and with officers and technicians. The sudden sharp increase in the demand for administrative personnel marked the

advent of the *literati* officials. The field of recruitment to the administrative class was widened by the extension of educational opportunities. There was, in consequence, greater participation from the lower social orders, but there was also an increase in corruption amongst the ill-paid officials. This corruption was one of the great weaknesses of the Sung, and the more so as the state had a hand in everything. It had a monopoly of the key industries. mines and transport and imposed commercial taxes not only on luxury goods but also on those for everyday consumption. This intervention by the state was matched by an increasing infiltration of traders into politics and the emergence of a merchant bourgeoisie. The importance of this class was a factor to be reckoned with in the passage of China down to modern times, and the beginning of the political antagonism between the *literati* and the merchants.

The growth of the towns. The intensification of trade and the development of a monetary system led to the rapid growth of the urban centres. The towns ceased to be merely agglomerations built to a standard pattern. They were now the products of the natural evolution of markets and strategic points, crossroads or river junctions, while the old centres like Kai-feng spilt over into suburbs, which had periodically to be re-walled. At the beginning of the twelfth century the number of towns of more than a million inhabitants increased rapidly. In the thirteenth, Fu-chou housed over four million inhabitants and the road between it and the capital, something over 300 miles away, passed through six other large and highly prosperous towns. Already points of concentration of economic and political interests, the towns also became the centres for all dealings between officials and merchants. The guilds increasingly escaped from former controls, to form a state within a state that already admitted the clergy into a sort of political partnership. New conflicts threatened the empire. Conservatives, like Szu-ma-kuang, advocating a more liberal policy, defended the interests of the great landowners; their opponents, reformers, wanted to improve conditions for the peasantry, spread taxes evenly and subordinate the interests of the individual to the public interest.

The reformers, under the leadership of Wang An-shi succeeded in making a convert of the emperor and launched a programme of reform, which was pursued from 1086 to 1102. A capital tax was levied on the big estates according to the area of land, and merchants were forbidden to speculate in public necessities or to monopolize commodities. Loans against harvest yields enabled the peasants to escape from the usury of the rich and landowners were required to pay heavily if they wished to enjoy exemption from forced service. Despite the progressive trends they embodied, these reforms failed to find the defenders necessary to withstand the furious opposition they called forth from landlords and merchants.

The prosperity of the Sung. China in the eleventh century was nevertheless a prosperous country, with a cash income more than ten times that of the T'ang. The agricultural economy was certainly in the hands of private individuals,

but the systems of taxation acted fairly. In the course of a century, commercial taxes had doubled, the monopolies were bringing in five times as much and revenues had increased in the same proportion. This prosperity flourished in the towns, where the spread of knowledge through schools and private academies produced a great flowering of talent. This was the period of great writers like Ou-yang Hsiu (1007-72), of great poets and calligraphers like Su Tung-p'o (1036-1101), of painters of the new vision, working in monochrome wash-tint, like Ma Fen and Mi Fei (1051-1107), or artists with the boldness of composition of Kuo Hsi and Chao Ta-nien. Thinkers like Chou Tun-yi (1017-73), or the brothers Ch'eng hao and Ch'eng Yi, were preparing the way for the advent of a new philosophico-religious syncretism: neo-Confucianism. Encyclopaedists and essayists were noting the things of this world. It was the period of Chen Kuo (1030-93), author of the *Men ch'i pi tan*, a veritable mine of technical knowledge, among the most significant achievements of which was the astronomical clock of 1090, which has been described by Su Sung. Under the very noses of the barbarians, the northern Sung developed the incomparable culture that constitutes the foundation of modern China. The frequent raids of their turbulent neighbours had the effect, it is true, of circumscribing its influence, which is not to be compared with that of the T'ang. However, it was precisely because of this lightening of the pressure of the Chinese presence that the development of original cultures in Japan and Korea was possible.

The Koryo Korea. In Korea the T'ang agrarian system produced the same results as in China. From the ninth century onwards the great estates became more and more independent, especially the big monasteries, which here, as elsewhere, maintained armed troops. The slackening of the bonds with the central authority moreover favoured the hereditary transmission of titles. The consequent breaking up into units fostered feudal rivalries and peasant movements. The kingdom of Silla split up along the lines of the old territorial divisions of Paikche and of Kōguryō; the dynasty in practice no longer ruled anything but the capital. An independent chief, Wangkōn, conquered the country of Silla in 935 and made himself master of Paikche territory, founding the dynasty of the Koryo, with its capital at Songdo (today Kaesong). This new sovereign, true to tradition, changed the names of prefectures, redistributed lands and lightened taxes. His policy is clear from the counsel he left for his son. He aimed to support Buddhism but also to control its priesthood and the monasteries; he wished to keep up a steady resistance to the plans of his barbarian neighbours; and he desired, finally, that the royal power should pass to the most capable contender, disregarding primogeniture if necessary. The Koryo sovereigns did not always follow this policy. But if Confucianism served to some extent as a counterweight to the Buddhist predominance, the priesthood continued for their part to exercise considerable influence at court. Thus in 1036 the king decreed that every fourth son was to become a monk

At the end of the eleventh century, the requirements of the Buddhist examinations eliminated those candidates in the Confucianist tradition. On the positive side of this situation were the moderating influence of religion, the abolition of the death penalty in some parts, the requirement that there be three judges to sentence a delinquent and the waiving of taxes in years of scarcity. Military policy was more consistent, and there were many clashes between Koreans and Kitans, Jurchen and Mongols. Though there were intermittent relations with China, which continued to send scholars and doctors, relics and books, the barbarian barrier to some degree isolated the peninsula and this tended to facilitate the flowering of its cultural maturity. The Korean taste is undoubtedly that which has come down to us in the art, and more particularly the ceramics, of the Koryo. Two innovations are notably to be credited to this dynasty; the minting of coins without a hole in their centre (996) and the production of metal printing characters. Korean publishing activity centred mainly on Buddhist and historical texts, though literature, poetry and drama were also produced in abundance. Despite heroic struggles, Korea passed under the yoke of the barbarians in 1259. It was occupied for a century, the occupation having for its sole object the turning of the peninsula into an anti-Japanese military base, Japan being now a coveted area for conquest.

Heian Japan (ninth to twelfth centuries). The eighth century had been for Japan one of considerable economic expansion. With the development of agricultural land had gone the introduction of new crops, such as wheat, rye and millet. There had been a parallel increase in the production of metals—copper, gold, silver—and of sulphur and mica. Trade had expanded with the emergence of permanent periodic markets and communications benefited from the institution of postal relays.

Nevertheless, national resources were on the wane. The great landlords in fact were not disposed to apply the centralizing reforms. The imperial lands, as soon as they were constituted, tended to revert to a state of feudality and the franchises that were successively granted facilitated the dismemberment of the national domain.

The revival of the imperial authority. When he set up his capital at Heian (794), the Emperor Kammu was probably thinking in terms of a site with better water supplies; he was also doubtless under pressure from the Fujiwara clan, anxious to create for themselves a new centre of influence. Principally, however, he was himself anxious to escape from the Buddhist grip in which Nara was held. To gain help, Kammu sought the aid of two monks, Saichō and Kūkai, better known by their posthumous titles of Dengyodaishi and Kobodaishi. These two, on their return from China, founded two sects, Chinese in inspiration, but adapted to the Japanese spirit, the Tendai and the Shingon. The Tendai, liberal and accommodating, was a form of protest against the plurality of sects that encumbered Nara Buddhism. The Shingon, mystical and esoteric, consisted a new force, gathering all those who were

attracted by the magic of its formula. These two sects were to dominate all religious life under the Heian, creating a very different trend from that of the politically orientated sects of the previous century. Internally, the dominant political problem was that of insurrections, which broke out in the north of the island, and numerous campaigns were required to suppress the rebels, who were known as Ebisus. Multiple reforms lent strength to the imperial arm. With the creation of commissaries (*kayegushi*) in 790 to supervise transmissions of power, itinerant prefects (*kebiishi*) in 810 charged with the settlement of disputes with the established law, and specialist bodies, such as the Kurododokoro in 810, a chancellery centre, came into being to which were referred all questions which required delicate handling.

The rise of the Fujiwara. The court in the ninth century seemed armed with the perfect machinery for applying the imperial ordinances elaborated in the preceding century. It had not consolidated its power, however, without provoking violent reactions. There were many disputes between the various imperial branches and the ruling clans. A political stratagem was invented which was aimed at neutralizing the rivalries. The son of Emperor Kammu, Heijō, handed over the throne to his brother in order to devote himself unreservedly to the direction of the country's affairs, becoming a directing emperor (*jōkō*), co-equal with the reigning emperor. This division of the imperial authority into two was practised especially in the eleventh century. Another innovation modified the social balance: princes who found themselves in straitened circumstances at the court had the right to renounce their titles and become ordinary subjects, able, if they wished, to accept an appointment in the provinces. This was the choice made by the Taira and the Minamoto, who went off to seek fortunes for themselves and soon returned as great magnates to the court to take up power again. The tenth and eleventh centuries, despite the work of the emperors of the ninth, thus saw the disappearance of the rôle of the emperor and the advent of the regents. The regents, who all came from the powerful Fujiwara family, owed their fortunes to their large land holdings. At the end of the ninth century, Japan was no longer anything more than an assemblage of manors (*shoen*), the owners of which banded together or fought among themselves; most of these manors were in the hands of the Fujiwara, whose reign lasted from 930 to 1036. The emperor had become simply a name, respected certainly, but without any real power. All governmental operations were under the control of the regents (*sesshō*) while the king was a minor, and of the civil dictator (*kampaku*) at his majority. In the provinces, the regional magnates became more and more important and their disputes could not be settled by the court. Masters of autonomous territories in touch with the court directly or indirectly via high officials, these magnates not only controlled armies but also the mass of the peasantry.

The reign of the Fujiwara, which set the seal on the passage from a régime

of imperial power to one of a civil authority, ended in a weakening of the central power and a dismembering of the national territory. If the regents failed on the economic and social level, however, they nevertheless left behind the memory of a brilliant society which produced the highest works of the Japanese civilization. We must certainly admit that it was only the aristocracy who benefited; the provinces remained in a state of crude semi-civilization. At the court all the conditions were satisfied for the flowering of a *dolce vita*—wealth concentrated in the hands of a few aristocrats and courtiers and a multitude of intriguers out to obtain appointments and franchises. But the most important event, to which we owe the survival of those narratives of adventure that delighted the courtiers, was the invention of the Japanese syllabary (*kana*), alphabetic characters which made possible the written notation of the spoken language. While the men struggled with varying degrees of success to draw up reports and memoirs by using the Chinese characters, the ladies of the court noted down their impressions in good Japanese. Thus, at the beginning of the eleventh century, the masterpieces of Murasaki, Shikibu and Seishonagon were born. Japanese taste had emerged, and had shaken itself free from the Chinese model, to express what were for some, at least, the dream centuries of the Fujiwara period.

The division of the imperial power. While at the court all the fruits of an advanced culture proliferated, the provinces had a harder, though doubtless healthier, lot. The great landowners had no aspirations to power; they wanted simply to live in their own dwelling-places, free of all taxes and servile obligations and to make the maximum use of the influence of the court to maintain their independence and oppose the interference of rivals. This absence of interest in power made them ready auxiliaries to imperial intriguers. Two rival clans competed for the favours of the court, the Taira and the Minamoto. At the time when the emperors were struggling desperately to reduce the power of the Fujiwara, these provincial forces were precious assets. Their support enabled the emperor to regain power using the system of a cloistered government (*insei*) in which the control of power was exercised by a *jôkô*, or cloistered emperor. Three cloistered emperors ruled over a period of 120 years, during which ten or so emperors succeeded each other on the throne. For more than a century, accordingly, Japan enjoyed a certain governmental stability. Once favourably placed, however, the great clans were tempted by power. After a brief period of rivalry and a quarter of a century of Taira predominance (1160–85), the Minamoto triumphed, and exterminated their competitors in a series of epic battles which have supplied the themes of much literature and drama and still survive in art and popular imagery. At the end of the twelfth century, a Minamoto warrior, Yoritomo, established himself at Kamakura and received from the emperor the title of generalissimo (*shogun*), putting the finishing touch to the rise of the samurai that had begun thirty years earlier. The Kamakura government (1185–1392) inaugurated in Japan

the Shogunate system which lasted until 1868, and was the cause of the blind confidence which many of the Japanese placed in military leadership, a leadership that at that time succeeded in preserving their country from Mongol invasion.

The Emergence of the Tungus and the Mongols

While China and Japan were still adding lustre to exceptional cultures, the barbarian frontiers had stabilized themselves around the Islamized Karakhanids and the Sinicized Kitans. At the beginning of the twelfth century, however, new tribes took the place of these two civilized peoples: the Tunguz Jurchen founded the Chin dynasty (1125) and crushed the Kitans, before being themselves swept out by the Mongols a century later.

The Chin empire. The Jurchen lived in the basin of the Amur among related tribes that included the descendents of the founders of the old Po-hai kingdom (713-927). Unlike the Kitans, the masters of the steppe, they were forest-dwellers, with a hunting economy paralleled by horse-breeding. They lived in agglomerations of dwellings without ramparts or streets. The chief gave audience to his followers seated on a throne which was covered by twelve tiger skins. The encampment, as R. Grousset describes it, would be the scene of great feasts, 'with drinking bouts, music, wild dances, and mimed hunting and battle scenes, and—the supreme luxury for these forest people—painted women juggling with mirrors, which flashed beams of light on the audience'. Vassals of the Kitans, these rough foresters exchanged honey and furs with them for silk and household articles. The transactions were not always entirely equitable and dissatisfaction alienated the masters and certain of the tribes. At the beginning of the eleventh century, a chief, highly regarded by the Liao because he mounted guard on the 'Road of the Falcons', a great refinement of the courts of the time, was appointed governor of all the tribes. This unification preceded the emancipation that took place in 1115 when the Chin empire was founded, and soon overran all the lands of the Liao and with them Chinese territory as far as the basin of the Huai. The structure of the countries thus occupied changed little, but the rule was harsher than that of the Liao. In 1183 the country had 45 million inhabitants, 83 per cent of whom were Chinese. 23 per cent of those employed on the state domains were slaves; the proportion of slaves on private estate was 21 per cent, but on the estates of the great nobility, it was as high as 96 per cent. Unlike the Kitans, the Jurchen paid no taxes. Organized in family units, they supervised, exploited and took the maximum advantage of their situation. They did without the assistance of collaborators and thus reinforced the discontent which the masses felt towards the great. Although the Jurchen at the beginning of their reign had massacred the population, laid waste the land and razed the towns, they found themselves after 1132 engaged in the work of reconstruction and the repairing of dykes and canals; at the same time, they experienced the inexorable spread of

Chinese influence. To their credit must go a reverence for Confucianism and its classics; they also invented a script of their own, derived from the Kitanian, with the aid of which they were able to found a Manchu tradition. They were responsible, further, for the compilation of imposing dictionaries and for the enrichment of the dramatic repertoire with a thousand new plays; and they were patrons of scholars, like the mathematicians Li Yeh and Ch'in Chiu-chao. Lords by force of arms, however, and not by consent, the Chin, notwithstanding their strength, were not able to survive the first serious conflicts.

The Karakhitai. Though they crushed the Liao, the Jurchen had not been able to subdue all the Kitans, some of whom departed westward to preserve their independence. Recognized as sovereigns by the Uyghurs, they reached the Altai unopposed and set up their 40,000 tents. Taking advantage of the western threats which were then bearing heavily on the Karakhanids, they crushed them and founded the empire of the Karakhitai, giving their sovereign the title of Gurkhan. They proceeded to bring under their control the Kashgar region, Issik-kul and Transoxiana, and seized Kharezm from the Seljukids. After a century and a half of Islamization, central Asia for a hundred years now reverted to Buddhist masters. The Karakhitai, moreover, remained faithful to their old Chinese civilizers. Their first chief Yeh-lu Ta-shi is even remembered as a Chinese scholar of some attainment. Their administration was based on that of the Liao, its authority consolidated by a centralization of all fiefs, which were no longer distributed, as in the past, within the ruling family. The reaction against Islam was accompanied by a renewal of Buddhist and Christian traditions and the introduction of Chinese manners. The sovereign in his silk Chinese-style dress was even for a while identified with the legendary Prester John, the Christian ruler whom the Crusaders wished to see attacking the Infidels from the rear. The Karakhitai method of levying taxes was sometimes through a delegate permanently at the vassal's side, sometimes through an itinerant collector and sometimes through local dignitaries arriving to render the lord his tribute. So far as religious policy went, they did not, despite their own profession, eliminate the Moslems, who retained control of commerce and had their representatives serving at court. All their subtle policies and prudent administration, however, did not enable the Karakhitai to last out their century of existence. In 1210 the shahs of Kharezm, their vassals, rose and crushed them and dreamed of conquering all the Far East and China. But their power, like that of the Chin, was too frail; they were soon to be swept aside by a mighty newcomer, Jenghiz Khan.

The Mongols. The Mongols were shepherds and hunters, who preserved a tribal solidarity although they led a nomadic existence over an area extending from the Khingan mountains to the Altai, at the northern borders of the civilized kingdoms. Their animals were their sole possessions, possessions whose flesh and milk supplied their owners with food and drink. The lands they wandered through were occupied in the tenth century by various tribes

related to the Turks—the Naimans, neighbours of the Uyghurs; the Ongut, descended from the Sha-t'o; the Tatars, already Mongolized; and the Kerait, representing a Turko-Mongol mixture. The Mongols proper, a branch of the Shih-wei referred to by the T'ang historians, were spread from Manchuria to Lake Baikal, alongside the Merkit, on the Selenga and the Oirat, in the Baikal region. This whole turbulent area, still at the tribal stage in spite of a few hastily constituted kingdoms and the adoption of foreign titles, represented a permanent threat to their near neighbours of the Chin empire. In 1161 the modest kingdom which the Mongols had founded was wiped out by a coalition of the Tatars and the Jurchen. A few years after this, in 1167, a nephew of the unfortunate Mongol sovereign, Temujin, was born, heir to a lost kingdom. After an unhappy childhood he contrived, once he had become the head of the family, by a series of alliances to go from victory to victory, and to bring the whole of Mongolia under his control. After a series of epic battles he was in 1206 consecrated Great Universal Sovereign or Jenghiz Khan. His means were still limited, but he had on his side the moderation and the deliberation of a great leader and, above all, a magnificent army, the exploits of whose horsemen, incomparable bowmen and seasoned warriors take their place in history and legend. What legend portrays so exultantly, however, the chronicles reveal as a grievous ordeal for the city-dwellers of Asia. The Mongols, lagging behind the other barbarians of Asia in their development, did not know what to do with the towns. On the principle that only terror is profitable, only the steppe livable and only the way to heaven valuable, they pillaged, destroyed and massacred. The list of their conquests is a litany of disaster: the marvellous cities of Bukhara, Samarkand, Nishapur, Baghdad and countless others were razed to the ground and their inhabitants slain. The sword, however, fell only on those who offered resistance. Those who welcomed the Mongol as a liberator, like the Moslem Turkestanis, oppressed and sometimes slaughtered by the Buddhist or Christian Karakhitai, and the Chinese, anxious to be rid of Moslem occupation, escaped the terror. The local régime was retained to serve the new masters. Having conquered the west, Jenghiz Khan was preparing to conquer all the east when in 1227 he died, leaving it to his successors to defeat the Chin (1234) and mount the throne of China (1280).

In the course of their conquests, the Mongol state had organized itself and the master of the steppes had taken from the Uyghurs the instruments of his civilization, the script and the language of his administration. In 1204 he acquired the services of an Uyghur Guardian of the Seals and in 1215 he brought away with him from Peking a Kitan adviser, Yeh-lu Ch'u-tsai, thereby inaugurating the Mongol policy of employing foreign advisers, often eminent men of barbarian origin. The common law was the Jassak or Yassak, a law buttressed by heavy penalties; the penalty for murder, serious theft, false pretences, adultery, or receiving, was death. The Franciscan, Plano Carpini, marvelled at the obedience of the people, 'greater than that of our monks to their superior'. The instrument of power, the army, was kept perpetually on

the alert. The personal guard of the khan numbered 10,000 men, and the total army 120,000. Comparatively small in numbers, this force displayed its strength in an almost mystifying ubiquity, harassing unceasingly, cutting convoys, encircling the isolated, manoeuvring in impeccable order and, repelling all attacks, always checking the enemy. The hierarchy was based on units in powers of ten, commanded by decurions, centurions, chiliarcs and myriarcs. Above the secretaries of state and the foreign advisers, the officers of the guard constituted a permanent council. All the territories were organized in mobilization units, each unit having to provide about 10 per cent of the military force. This military organization rested on a vast communication and transport network. Relay posts every 25 miles enabled messengers, tax collectors, and merchants to circulate freely and rapidly.

All the conquered territories belonged to the imperial family, which ruled over an aristocratic society made up of nobles and chiefs who provided the framework into which the lower classes fitted, soldiers and free men, commoners and serfs. The hierarchy rested on personal hereditary relationships. The religious basis of the régime was the old Turko-Mongol animism, with an admixture of Mazdaean and Chinese elements. The supreme divinity remained Tengri, the god of the Sky, who was served by the worship of mountains and springs. There was no bar against any religious practitioner who might be able to conciliate the 'principalities and powers'. Nestorian priests, Buddhist monks, Taoist magicians, Franciscan missionaries or Moslem mullahs, all were equally welcome at the court of the Great Khans. The same desire to make use of all talents manifested itself in the confidence which they placed in foreign advisers and in the care which was taken of craftsmen and technicians, who were always spared unnecessary toil.

The reigns of the Great Khans. The unified régime in Mongolia lasted only for the lifetimes of Jenghiz Khan (1206-27) and his three successors, Ogodai (1229-41), Guyuk (1246-8) and Mongke (1250-9)—that is, for half a century. In the first quarter of the thirteenth century, the great conqueror had made himself master of the whole of the Eurasian steppe; it remained for his successors to subdue in the second quarter the Chin empire of the Jurchen (1229-34), the kingdom of Korea (1231-6), and the kingdoms of western Iran, Georgia, Armenia and Asia Minor, together with Bulgaria, Russia, Poland and Hungary. The death of Ogodei in 1241 called a halt to the march westward; that of Mongke in 1259, to the movement to the south-west. The reign of the Khan Mongke was the apogee of Mongol power. The occupied territories retained their economic structure, though the distinction between the free labourer and the slave became blurred. The inhabitants were taxed, as the Mongols were from the time of Ogodai. There was an annual tribute, together with regular taxes for merchants and craftsmen, stock-breeders and farmers, as well as special taxes and *corvées*. The burden was heavy, but it should be remembered that the Mongols had adopted a policy of insurance

and assistance for the poor and needy. They supported Nestorian Christians, Taoists, and Buddhists alike. Mongke was the author of the famous simile which he confided to Rubrouck: 'All the religious are like the five fingers of one hand'. Travellers have left detailed accounts of the court of the khan, bustling with feasts and banquets, thronged by picturesque personalities from Pâquette, a Lorrainian from Metz, who was the wife of a Russian carpenter in the service of a Nestorian priest, to the Russian jeweller, Cosimas, and the Parisian goldsmith, Guillaume Boucher, whose Saracen wife was born in Hungary. Great colloquies would go on inside the tents. Rubrouck, in a religious discussion about theism, took sides with the Moslem doctors against the Buddhist philosophers. But, despite his influence over the khan, he failed to obtain a Mongol alliance for St Louis; this went to the king of Armenia, a better diplomatist, who was able to secure an alliance with the khan against the caliphate. Such an alliance fitted in with the policy of Mongke, who was anxious to recapture those Mongol conquests which had subsequently been lost again. He charged his brother, Hulegu with the conquest of Persia and Mesopotamia, and another brother, Kublai, with the subjugation of China. His programme was fulfilled, but at his death the empire split and its destinies were taken over by the khanate of Kipchak, or Hulegu, in Persia; by the Chaghatai in central Asia, future headquarters of the White Horde and the Golden Horde; and, lastly, by Kublai, who succeeded to the southern Sung, but failed to hold Indo-China and Japan.

The Southern Sung

In 1115 the Jurchen, founders of the empire of the Chin, were ambitious to supplant the Kitans. The Sung emperor, the aesthete Hui-tsung, was completely taken up with his literary and artistic activities. Somewhat deficient in political wisdom, he naïvely imagined that these newcomers would assist him in getting rid of his embarrassing neighbours, whose presence was constantly threatening the economic and financial stability of the dynasty. The alliance was effective and the Kitans were driven out of Peking. But the invaders had no intention of withdrawing without their wages, and in 1125 they charged on Kai-feng and seized the emperor. A brother of the sovereign, however, contrived to escape and fled to Hangchow, there to found the dynasty of the southern Sung.

The economic system. The importance which the south had assumed from the tenth century, and its economic rôle throughout the eleventh, was some compensation for the loss of northern China. Economic wealth was concentrated in the south and the structure of the country underwent no change. Despite one or two glorious episodes of resistance under the heroic figure of Yo Feo, peace had to be made and vassalage conceded. The landed aristocracy consoled itself with the thought of the profits they stood to gain in time of peace. A more relaxed military and civil policy left the emperor time to maintain a court

devoted to art and letters. Numerous wealthy patrons assembled men of talent and genius around them. To an even greater extent than before, the business of high finance attracted men from along the nobility. External trade was a source of great riches; merchants entered into association with foreigners and received a share of the immense fortunes to be made. The foreigners' quarters had become sumptuous residences, managed by the merchants themselves, and subject to the control of a customs commission, whose collections amounted to 7 per cent of the imperial revenue. The revenue was derived mainly from the monopoly of salt (50 per cent), taxes on spirits (36 per cent), and taxes on tea (7 per cent). The state ran many restaurants and drinking-houses for profit. At the end of the twelfth century there were twenty-three places of entertainment in the capital. This income was largely devoted to good works. Already, in 1098, a law had made provision for a housing office, a bureau for medical assistance and another to concern itself with funerals. In 1130 an old people's home was opened, in 1248 an orphanage, and 1254 saw the establishment of a fire brigade in the capital. All these measures, however, did not compensate for the misery of the population. In the north, the heavy hand of the Mongols had already fallen on the people. The organization of landed property was still the same, but the personal status of the tenant varied with the type of estate. The best conditions obtained in the public domain, where officials were content with the basic tax multiplied by ten. The farmer on private land had to pay up to a hundred times the basic tax and also to suffer service obligations and *corvées*. In even worse case were the agricultural labourers, who were exploited by the rich farmers and severely controlled by the bailiffs. Farmers and labourers were in fact no more than slaves, their lives, in the eyes of the occupying power, being of small account. In the south, things were better, though the life of the farmers still contrasted sharply with that of the nobility. For ten years until 1275 the court attempted to proceed with a reformative nationalization, but the opposition of the great landowners was insurmountable. From then on, the country, threatened by destitution and neglected by the court, was ripe for enslavement. The operation was swift, the Mongols finding allies in all the Chinese who wished to save their property or conserve their privileges. In 1276 the capital fell and the emperor was taken prisoner. Three years later the last Chinese sovereign disappeared. In 1280 the Kublai, now master of a unified Chinese empire, founded the dynasty of the Yuan.

Marco Polo. Just as travellers of the ninth century, such as the Japanese, Ennin, tell of the splendour of the T'ang even as their sun was setting, so we have accounts of the beauties of the China of the southern Sung. The *Travels* of Marco Polo, written at the beginning of the Mongol occupation, convey a vivid picture of this brilliant culture in the middle of the thirteenth century. An intensely intellectual life flourished among the city-dwellers, who were blessed with every comfort and every delectation. The writers and artists perpetuated brilliantly the work begun by the northern Sung. Nevertheless,

the impetus of the eleventh century seemed to have gone. The philosophers were reaching a synthesis of neo-Confucianism, a majestic structure reducing to coherency all past concepts and bringing together all that the Chinese could retain of Buddhism, Taoism and Confucianism. To the southern Sung it was given to attain to one of the peaks of Chinese civilization, but the Mongol tide swept away these auspicious beginnings, sparing only Dai-Viet and Japan.

The Dai-Viet

The fall of the T'ang came precisely when the countries of northern Indo-China were becoming capable of taking advantage of what China had to offer. The expansion of agriculture had increased production and made possible a higher living standard. The Chinese administration had provided a sound political framework, embracing the families of settlers and the great land-owners. Despite its hold on the élite and on the cadres of the military, the Chinese organization had not subdued the Vietnamese villages, where an oral tradition kept alive the memory of an ancient sovereignty. Periodically, lords and peasants threw off the Chinese yoke. The decadence of the empire was to enable national aspirations to be realized; in 906 the population revolted and conferred power on a rich notable. His son took over the work after him, appointed administrators and reformed the system of *corvées* and taxes. After a reassertion of Chinese authority, a prefect, Ngô Quyen, drove out their troops in 939 and founded a sovereign dynasty which lasted until 968, when the nation took the name of Daicoviet. The two next dynasties, the Dinh (968-78) and the early Lê (979-1009), reigned over a country which had been enlarged in 780 by the addition of the northern provinces of Champa. Their accomplishment was primarily of religious origin. Taoist and Buddhist dignitaries were thus integrated into the administrative hierarchy. Daicoviet only really flowered under the succeeding dynasty, the Ly (1009-1225). The founder, Ly Thai-tô, reorganized the country, dividing it into twenty-four provinces, the administration of which was entrusted to his friends. In order to build up the administrative organization, he introduced in 1013 six taxes—on rice fields, gardens and ponds; on fields, mulberries and alluvial land; on natural produce sold in the markets; on salt; on exotic products, such as odoriferous plants and ivory; and on woods, flowers and fruit. As revenue increased, the state gradually came to control the feudal estates and the régime lost its familial character. To reinforce central authority an oath was introduced for mandarins, and a military élite of some 2,000 men created. Grants of land were distributed among the founder's relatives and civil servants. To spread the military burden over the whole population, conscription registers were introduced for the army. In 1044 the system of royal highways comprised mail relays and post house lodgings for administrative officials on tour. All these administrative measures were accompanied by the organization of crops, including rice, and the steadfast support of the Buddhist priesthood in its attempts to soften laws and improve manners.

Military and economic problems. Wars with Champa were a perpetual burden. Ly Thanh-tông (1054-72) was finally able to subdue Champa and proclaim himself emperor of Dai-Viet, the name the country went by until 1804, when Gia-long changed it to Vietnam. Educational development and economic expansion gave the new empire a solidity that affected the destiny of the country and gave it victory in its war with China (1174). From then on, for nearly a century, there was calm on the northern frontier. Clashes with Champa had been replaced by incidents with the Khmers, who ceased their aggression in 1150. Despite its social and economic efforts, the dynasty had been worn out by these wars, and court dissensions brought about its downfall. In 1225 a new dynasty, the Trần, established itself (1225-1400). This house contrived to improve the economic and military situation. It perfected the work of the Ly, at the same time taking the wise precaution of handing on the throne during the lifetime of the sovereign. As in China, the system of taxation and the distribution of uncultivated land led to the formation of great domains (*trang-dien*). The time was also one of a rise of Confucianism and a decline of Buddhism. The fourteenth century in Vietnam was to see the development of lay education and the appearance of the first notable works of the literature to be written in Chinese. The court of Dai-Viet was, like that of Korea, a replica of the Chinese. The expedition launched by Kublai Khan, master of China, against Dai-Viet was motivated by a desire on his part for access to the Spice Route, to control the Moslem convoys and, at the same time, to assure an outlet for his merchant fleet. Three times the Vietnamese repelled invasion, but, at the end of their resources, the Trần opted for negotiation and the payment of a tribute to the khan for the better assurance of their independence. The course was now set for the country to seek further areas in which to expand; and so there came the march southwards and the subjugation of Champa. The prosperity of Vietnam was commented upon by Odoric de Pordenone, who passed through it in 1325, but there were already to be heard the first rumblings of the crisis that brought down the Trần in 1400.

Kamakura Japan

The first shogun, Minamoto Yoritomo, had established himself to the east, in the heart of the territory possessed by his family. Imperial authority from the capital was effective in these distant lands only to the degree to which the local magnates acknowledged it. Yoritomo was careful to submit his every action for sanction by the emperor. This attitude enabled him to attract all those high officials whose insignificant claims to nobility made advancement difficult for them at court. In a short time, he found himself with an administration of high quality, fearless of innovation and possessed of a realism that was to prove sympathetic towards flexible and effective policy-making.

Administration and justice. At the end of the twelfth century, the countries under shogun authority were numerous, but their development had produced

an independence of which the most evident result was a disparity of rules in the processes of administration and justice through the territory. To this diversity was added the individualism of the farmers, who were accustomed to growing rice on narrow strips of land, and cherishing patches that provided them with fruit, fish and game. Furthermore, the provincial authorities had, for a long time, been merging with those landowners who had armed men at their disposal and constituting with them the dynamic element of the warrior class. This mosaic of territories comprised nine-tenths of the provinces. These provinces might throw off all authority from the centre; they might pass from one allegiance to another, or they might be carved up arbitrarily, with results as bewildering and complex as anything that had gone before. With the agreement of the court, the shogun recruited a corps of military commissioners (*shugo*) and another of stewards responsible for the economic and fiscal administration. He also levied for his own use a tax on harvest yields amounting to 20 per cent. A feudal system thus came into being in the place of the old imperial bureaucracy. At the top, the principles which operated were those of the clan, lord and vassal being united by ties of blood that went beyond contractual obligations. These principles, based on loyalty, were the basis of a Samurai code to which the name of Bushidō was given in the seventeenth century, and which remained thereafter the rule of life for every gentleman. It was a rule that laid down many duties and sacrifices, but was indifferent to all to whom the code was not considered applicable. The same trend towards simplicity was seen in certain religious movements. In 1175 the monk, Honen, declared the one simple act of faith in Amida to be necessary and all-sufficient. His disciple, Eisai, for his part, preached the principles of the Chinese sect of Ch'an (Zen), whose principles of simplicity and composure fell on favourable ground in a society which preferred rusticity and courage to the meticulous study of the sacred texts.

When he died in 1199, Yoritomo left behind him a stable country with an administration better adapted to regional disparities, and one which was relatively prosperous, thanks to profitable commercial relations with Sung China.

The Hōjō regents. At the time of the conflicts over the succession, the domain of the shogun was increased by the addition of all the great estates of the Kyōto region. The increase in his possessions led the Regent Hōjō to loosen the regulations somewhat. The laws were hard, but they were liberally interpreted, and the peasant could sell his land and benefit from a justice that sought to protect him. The Hōjō régime promised to be lasting, but the want of blood links with the court made his situation more precarious than that of previous regents, and unfortunately at this moment fate chose to face them with the Mongol danger. While Bakufu drew its strength from the warrior clans of the east, the ruling class kept in touch with the masses, but when the Kyōto court was brought into the shogunal domain it created a new court in its own image of Kamakura. In spite of the sumptuary laws, there was an

imbalance between the shogunal court and the provinces. Rivalries among Buddhist sects did not help to restore the country's equilibrium. One man took the measure of the situation with rare insight, namely a monk named Nichiren (1222–82). This revolutionary monk criticized the sterile mysticism of the Shingon, the empty piety of Amidism, the negativeness of Zen, and the ritualism of other sects and wanted to sweep them all aside in favour of a return to the purity of Tendai. In his ardent patriotism, he passionately sought a religion that would serve the country, engendering a strong current of nationalism, of which he became a lasting symbol in the Japanese mind. But his political attacks and his military ventures were hardly calculated to help the regent in the pacificatory policy he was still pursuing. Before he had time to consolidate his régime, Hōjō found himself facing the Mongol threat. Kublai Khan, now master of China and Korea, had heard tales of the richness of Japan, particularly in gold, and in 1268 he demanded tribute from her. But the Japanese had set their faces against further continental tutelage and, undismayed by the fall of the Sung, they thought themselves strong enough to avenge those with whom they shared civilization and religion. In 1274 the khan, receiving no answer to his demands, sent nearly 450 warships to Japan with an expeditionary force of 30,000 Koreans and Mongols, armed with guns and engines of war. Japanese valour held out until the arrival of an unexpected but timely typhoon, which destroyed more than half of the Mongol fleet.

In the face of danger the military class had reacted strongly and at the imperial court all internal rivalry was subordinated to the common cause, only the priesthood remaining unaffected. The Hōjō's success was seen in the reinforcement of existing ports, the mobilization of all available forces and the construction of a defensive wall at Kyūshū; but such measures were crippling to the economy. After 1281 the Mongols returned no more, but the ever-present threat they represented weakened the country politically and economically. The Hōjō were unable to reward those who had distinguished themselves in combat in the traditional manner, since there could be no conquest in a purely defensive war. Moreover, land had gone untended, and in addition a sort of post-war squander mania pervaded the shogunate; no one any longer spoke of frugality or simplicity, so that, when a strong emperor, Go-Daigo, mounted the throne of Kyōto, he had only to call on the aid of a powerful vassal, Ashikaga Takanji, to overthrow the shogun and drive him and the last loyal 200 of his followers to suicide (1333). The Kamakura went through a bad time, but they were spared by the barbarians and were able to continue the civilizing work of their predecessors, to which they brought all the beauty of their simplicity, which harmonized happily with the influence of the Sung, and fascinated everybody by its moderation, proportion and subtlety.

B. The Indian Orbit from the Eleventh to the Thirteenth Centuries

In 1040, ten years after the death of Mahmūd of Ghazni, the Ghaznavids,

masters of the Punjab, suffered a serious defeat at the hands of the Seljukid Turks that shook the power of the dynasty. Examination of the political and cultural state of the Indian world at that date, however, shows, surprisingly, that it was particularly brilliant. (Map XV.)

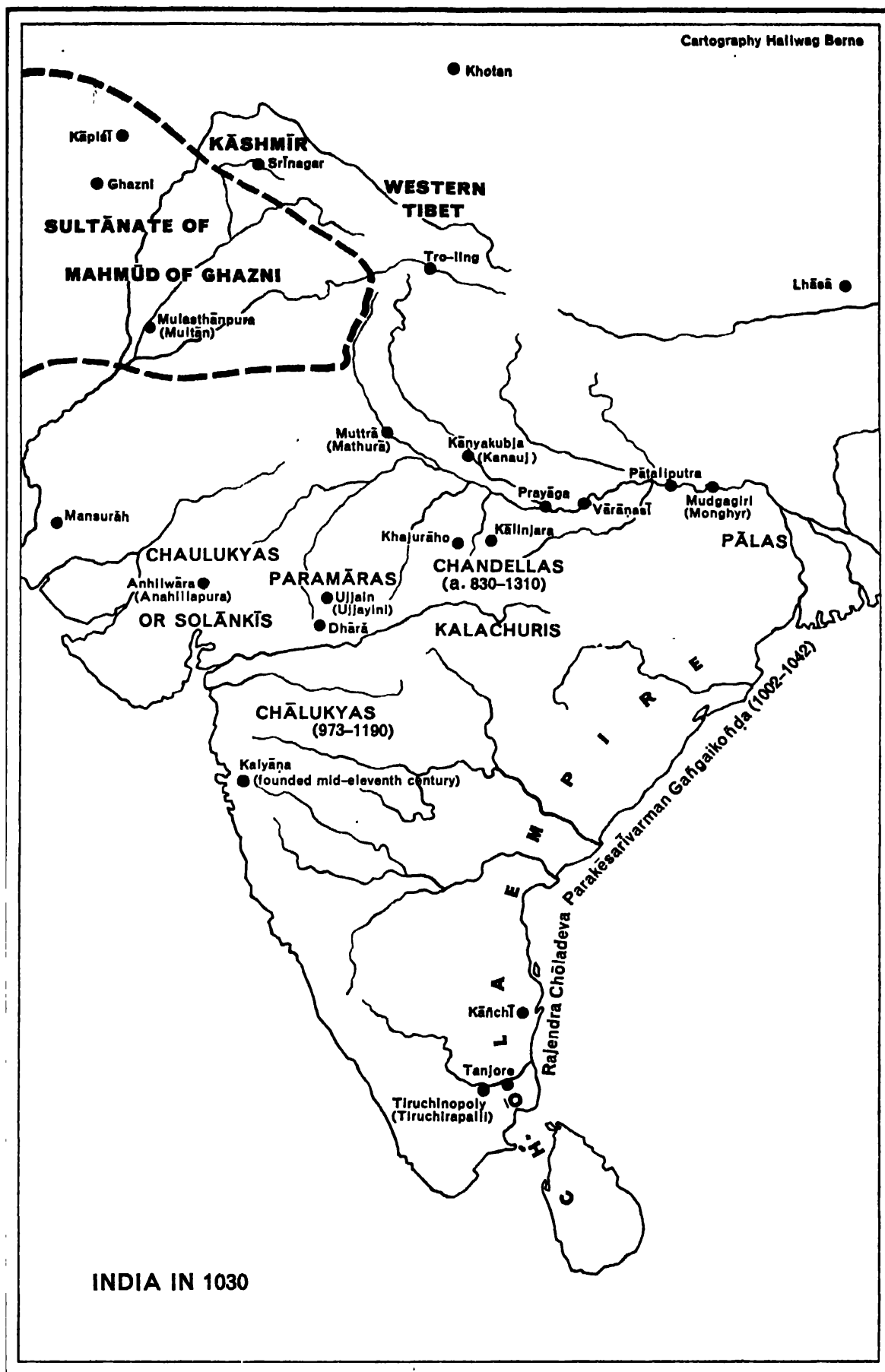
Hindustan

In Hindustan, it is true, political order had been thrown into confusion by the tempest. The Pratihāra dynasty had fallen, but the importance of states slightly further off had in consequence increased. Having taken advantage of the Moslem invasion to reach Prayāga (Allāhābād), and of the Chōla raid on Bengāl to seize Banāras (Vārāṇasī) from the Pālas, Chedi was a great state for nearly a century. Kāshmīr, against which Mahmūd had thrown himself in vain, was a centre of literature and thought where lived, in those early years of the eleventh century, Somadeva, the writer, Ksemendra, a poet of rare fecundity, and, above all Abhinavagupta, a philosopher and specialist of poetics. It was also a centre of Buddhist studies, playing its part in the gigantic task of translating the literature of Buddhism into Tibetan. Mālwa, ruled by the Paramāra dynasty, with its capital at Dhārā, is of special note. Its story is from every point of view a most striking one, as much for its romanticism as for its cultural importance. Dhārā replaced Ujjayini as literary capital of India. Bhoja, nephew of the unfortunate Muñja, an account of whose struggles with the Chālukya has been given earlier, was one of the great Indian sovereigns, at once a warrior in the best tradition, a patron of letters and the arts and a scholar and, in addition, the author of plays, works on astronomy and poetry and an architect. He founded a university and, what is considered not the least of his claims to fame, ordered the construction of the artificial lake of Bhojpur.

His military ventures, however, which had brought him into conflict with the Chālukyas, the Solānkis and the Chedis, came to an unfortunate end. From the outset of his career, Bhoja had attacked the Solānkis of the Gujarāt and had, by taking them unaware, contrived in 1022 to reach their capital of Anhilwāra at a time when the first call on the Indian princes was to unite in face of the Ghaznavids: three years after this, in 1023, Mahmūd sacked Somnāth, one of the most revered of the Indian holy places. In about 1060, with the aid of the king of Chedi and Solānkī, he struck the brilliant Paramāra dynasty a blow from which it was not to recover; it dwindled in significance, to disappear altogether towards the end of the twelfth century.

The depredations of the Moslems in Gujarāt proved, in the event, to be the signal for a new artistic flowering. Bhīma I had a temple built of stone at Somnāth; Solānkī dignitaries founded the famous temples of Mount Abū, Gīrnār, and Sātruñjaya. It is the great period of Jain architecture.

Chedi fortunes began to decline after this brilliant peak. Exhausted by the struggles with the Chālukyas, the Pālas and the Chandellas, Chedi kings were finally forced to bow before the Chandellas, who regained their autonomy. The family splits in the twelfth century and at the end of it had been healed.



MAP XV

This sequence typifies the working of Indian politics in the medieval period. Any dynasty which attained to a degree of power and was judged by rājas, of warlike disposition and fiercely jealous of their independence, to threaten their autonomy, was immediately suppressed by its neighbours acting in concert. If any rāja turned the debacle too appreciably to his own advantage, he was immediately sat upon by his former allies. 'No king without the consent of the other kings' was the precept which governed their actions, in fact. In this way military potential, which might have enabled the Indians to prevent the irruption on Indian soil of a barbarian *mleccha* civilization, was drained away.

In Bengāl, the Pālas had, since the invasion of the Chōla, Rājendra, played a negligible political rôle and their temporal power was diminishing. Their place in the history of Buddhism nevertheless remained the preponderant one. The famous missions of the Tibetan reformers Pandit Dharmapāla and Atisa Dipaṅkara date from this first half of the tenth century. Towards the end of the eleventh century, the Pālas, who took part in the struggle against the Chedis, headed several military campaigns. But they were unable to restore to Bengāl the city of Banāras, lost in 1020. At this time another Rājput dynasty, the Gāhadavāla, appeared, which was to play the rôle of protagonist in northern India until 1193.

The Deccan

In the Deccan, which had not suffered from the attack of the Afghan Moslems, an appreciably different situation prevailed. The most considerable political power was, at the beginning of the eleventh century, the state just formed by the Chōla dynasty. The Chālukya continued to rule in Marāthā and northern Kannada country but, for the moment, did not dare to attack their dangerous neighbour in the south-east.

The ambition of the Chōla sovereigns extended beyond the geographical confines of India towards South-east Asia. The Tamils contrived for half a century to monopolize maritime traffic with Indonesia and the Far East, establishing their suzerainty over the ports which Śhrīvijaya had made sure of in the eighth century, the Kra isthmus and the Malacca straits. Rājarāja, not content with the conquest of Chēra, Pāndya and Mysore and military intervention in the domains of the Malkhed Chālukya and the Chālukya of Veṅgī, had invaded Ceylon, occupied the north of the island and enforced his authority on the Maldive islands. His son, Rājendra I (1012-42) made his son-in-law the king of Veṅgī (in reality his vassal), and from Veṅgī dispatched an expedition across Orissa to Bengāl, thereby earning himself the title of Gangaikonda. But he was first and foremost the real creator of the Tamil empire overseas. He imposed Tamil domination and official Śaivism throughout Ceylon, and led a fleet against the empire of Śhrīvijaya. This expedition occupied the Kra isthmus and all the land from the eastern coast of Sumatra to the Malacca straits. The Chōla sovereign was henceforth 'master of the southern seas', a fact which the Chinese emperor acknowledged.

South-east Asia in the Eleventh Century

The face of the Indonesian world consequently underwent very considerable modification. The empire of Śhrīvijaya had already, at the end of the tenth century, forfeited the Malay peninsula. The sovereign of the vassal state of Ligor, having won his independence, had seized the kingdom of Dvāravatī (the present-day Thailand), bringing into being a large state which was regarded with apprehension by Cambodia as well as by Śhrīvijaya. The Śhrīvijaya empire, however, still comprised Sumatra, part of the Malay peninsula, Katāha (the Kalak of Arab travellers) and western Java, when, in 1030, the Chōla Rājendra virtually imposed his suzerainty upon it.

One consequence of the Chōla-Śhrīvijaya conflict was the unification of eastern Java by a Balinese who ruled under the name of Airlaṅga (c. 1035). The Javanese political centre of gravity shifted to the east, and Brahmanism waxed at the expense of Buddhism. Airlaṅga, who bore a Buddhist name, had himself represented, perhaps for political reasons, in the guise of Vishnu, mounted on Garuda. He died in 1042, a few years before Sūryavarman I and his kingdom was divided into two states, Kadiri, to which manifestly sovereignty pertained, and Jaṅgala.

Cambodian supremacy under Sūryavarman I. But, as Śhrīvijaya grandeur waned, Cambodia emerged as the major power in South-east Asia. Not only did the Khmer empire dominate Cambodia, in lower Mekong and southern Laos, but also it exercised considerable influence in Dvāravatī on the lower Menam, although higher in the north-west there still existed an independent Mon kingdom, called Haripuñjaya. At the end of the tenth century, a vassal sovereign of the Śhrīvijaya empire, the king of Ligor in the northern Malay peninsula, had conquered the kingdom of Dvāravatī, thus directly threatening Cambodia. His son, however, seized the Angkor throne, and ruled as a Khmer sovereign, under the name of Sūryavarman I. The Khmer kingdom thus had Ligor added to it.

Sūryavarman I was a great sovereign. Tolerant and subtle, and personally a Buddhist, he nevertheless protected Hinduism and respected the Śaivism, the cult of 'devarāja' which was the religious framework of the Khmer state. He apparently grasped the danger represented by the young Vietnamese state, Dai-Viet, for which Ngô Quyen had in 939 won independence and which had almost at once embarked on a struggle with Champa, where in the northern provinces in the north of Annam (southern provinces of north Vietnam) the population was already doubtless Vietnamese. In 982, the founder of the dynasty of the early Lê (980-1009), Lê Hoan, had sacked the Cham capital, Indrapura (probably to be identified with Trah-Kiêu), and a Vietnamese had even for a few years held power, though this reverted in 988 to a native prince. But hostilities continued and the Li dynasty, which had succeeded the Lê in 1009, pursued the same policy of expansion southwards. The Champa thus found itself caught between the thrust of the Vietnamese and Khmer imperialism.

Sūryavarman I, instead of struggling against the hereditary Champa enemy,

was apparently seized of the importance of the part which this Indian march in the face of the advance of Chinese influence was to play, and in 1030 he allied himself with the Chams to confront the danger from the Vietnamese. The Chams made the alliance an excuse for stepping up their pillaging expeditions in the south of Dai-Viet. In 1044, however, the Vietnamese penetrated to the new Cham capital, though this had been withdrawn, in 982 some 125 miles south of Indrapura. The Cham king was killed and a new dynasty, founded by Jāyaparamesvaravarman, attempted to settle the disorder produced by the invasion and to re-establish the royal authority, resting, naturally, on the support of the religious authority.

Burma under Anōratha. In Burma, at about the same period and a little before the death of Sūryavarman I, Anōratha founded a new dynasty (1044). Until now Burma had played only a minor rôle in eastern affairs; Anōratha provided it in every domain—political, economic, religious and artistic—with an impetus that turned it into a great state.

It will be remembered that Burma comprised two kingdoms; the Mon kingdom of Pegu in the south, with Thaton as capital, and the Pyu kingdom of Pagan in the north. Anōratha was king of Pagan, and his state, of no very great dimensions, was divided by religious disputes, the native cults not having been entirely supplanted by Buddhism and Hinduism. The Buddhism of the Great Vehicle, as then practised in Burma, was already pervaded by Vajrayāñā, and rubbed shoulders with an autochthonous cult of a somewhat enigmatic character, the cult of the Ari, which was characterized in particular by the worship of serpents. The priests of both faiths had acquired a considerable influence which rivalled even that of the state.

Anōratha became a convert to the Buddhism of the Little Vehicle, and brought in a monk, Theravada, from Thaton in the kingdom of Pegu to preach the ancient form of Buddhism to his subjects. This was the occasion of a war with Pegu, as a result of which Pagan took over all the cultural riches of Thaton, including books, monks, and artists.

Not content with unifying Burma by thus attaching Pegu to Pagan, Anōratha betook himself to Nan-chao, where numerous princes formally accepted his suzerainty. Finally, he entered into diplomatic relations with Ceylon, and, though not participating in the war against the Chōla, sent the king of Ceylon a number of monks and texts to help towards repairing the depredations caused by invasion. By the time of his death in 1077, Anōratha had made Burma a great power.

In the middle of the eleventh century, then, though there were threats to the Indian world, southern India and South-east Asia were enjoying a prosperity that, from the standpoint of civilization, was anything but sterile. Hindustan itself pursued a life of brilliance, luxury and refinement, regardless of the period to which it had already almost succumbed and which was about to renew its attacks.

Following the reigns of these three great sovereigns, Cambodia, Java and Burma play the pre-eminent rôles in the history of the Indianized Far East. Their successors, however, had to confront difficulties almost at once; internal problems, rivalries between states and, further, the threat of the non-Indianized peoples, Vietnamese and Thais. Chinese influence, even before the Mongol invasion, was gaining considerable ground in southern Asia at the expense of the Indians.

India before the Ghūr Invasion

In northern India, the political map was altered considerably by the advent, at the end of the eleventh century, of two new dynasties, the Gāhadavālas and the Chauhāns. The Pāla kings, who, since the loss of Banāras in 1020, played a less important political part, have a place in the history of civilization first and foremost as the patrons of the great Buddhist universities whence there went out missionaries and reformers (Dharmapāla and Atiśa), to a still only partially converted Tibet. The founder of the Gāhadavāla dynasty, Chandradeva Chandrāditya (1085–1112) took possession of Kanauj and Banāras and assumed imperial titles, which continued to be accorded to his successors up to 1200. He also resuscitated further east, though at Pāla expense, the old empire of Kanauj.

In Rājputāna, a powerful state equalling the kingdom of the Gāhadavāla was founded by a family of many ramifications, the Chauhāna family, a member of which, Ajayarāja, founded the town of Ajayameru, or Ajmer, in about 1130. The second successor to this king greatly increased the possessions of the dynasty, but he is remembered principally for the dramas, one of which was his own work, which he had engraved on marble at Ajmer.

Throughout the twelfth century, conflict among the Indian princes continued to be endemic, but the major event was perhaps the driving of the Pālas from Bengāl about the middle of the century. The last descendants of the famous family were confined to Magadha and Monghyr, while their former vassals, the Senas, who came from the north of Orissa, took Bengāl. The new dynasty had a brief but brilliant career. Only two sovereigns had reigned when a Moslem *razzia* all but cut off the dynasty, and, even as it was, completely checked its blossoming into a great state. Ballālasena (1160–9) himself the hero of an epic (the *Ballālacharita*), was the author of several works, and his successor, Lakshmaṇa Sena (1169–1200), was the patron of celebrated writers, among them Dhoyī and, especially, Jayadeva, the author of the well-known *Gīta-Govinda*, a praise of the god Krishna, sometimes styled ‘the Indian Song of Songs’.

At the end of the twelfth century the most important dynasties in Hindustan, therefore, were the Chauhāna of Ajmer, the Gāhadavāla of Kanauj-Banāras, the Solānkī of Gujarāt, the Chandella of Bundelkhand, the Pāla (their domain now restricted to Bihār) and the Sena in Bengāl. It would seem to be fundamentally a healthy state of affairs, especially if account is taken

of the wealth of these states and the traditional bravery of the Rājputs. Unfortunately the various princes were incapable of agreeing among themselves, and religious disputes aggravated political dissensions. Gujarāt, one of the most advanced states, was a stronghold of Jainism. It was the country of the philosopher Hemachandra (1089–1172), an author of vast learning who concerned himself with Sanskrit and Prākṛit grammar and lexicography, poetics, logic and politics, and wrote an historical epic, an adaptation of the Rāmāyana and sundry religious works. Hemachandra was also a reformer and was responsible for the abolition of the law confiscating the property of childless widows. He wished, however, to impose Jain ideas of non-violence that were really excessive. An extremely strong Śaivite reaction ensued in the following reign, during which monks were massacred and the temples sacked.

The return of the Moslems. Just at this time the Moslems reappeared; in 1178 came the Ghaznavids, whom the Solāṅkīs repelled, but the Ghūrs followed shortly afterwards. Once again the Moslem wave was about to break over India. In the Deccan, the struggle between Chālukyas and Tamils had been renewed, with fluctuating fortunes, in the middle of the eleventh century. The zenith of power of the Chālukya of Kalyāṇi was reached in the reign of Vikramāditya VI and coincided with a troubled period in Chōla history. In his reign of half a century, Vikramāditya VI brought peace and prosperity to his people, even once intervening to arbitrate in a dispute over succession in Tamil country, raising temples, particularly Vaishṇavite ones, patronizing the Kāshmiri poet, Bilhaṇa, who sang his praises in return, and the jurist Vijñānesvara, certain of whose recommendations are still in force.

During this brilliant reign, events of far-reaching significance were taking place in the neighbouring countries. The Yādava dynasty of Khandeśa, established since the ninth century in this district to the north-west of the Chālukya empire, elected to establish a new capital, the fortress of Devagiri. In Mysore, the governor of the country which had Dvārasamudra, that is, Halēbīd for its capital, liberated his province from Chālukya and Chōla suzerainty and brought the Gaṅgas into vassalage. This remarkable man reigned under the name of Bittadeva (1115–41). He welcomed into his country the famous thinker, Rāmānuja, who had had to flee the essentially Śaivite Chōla country, was converted to Vaishṇavism by that great man, whose teaching was to exert considerable influence over the whole religious life of India for centuries, and founded temples of a very distinctive style (the 'Hoysala') at Halēbīd and Belūr.

Chālukya fortunes went down into eclipse as two new dynasties arose. In 1160 Taila III was expelled from his capital by one of his generals, who founded the Jain dynasty of the Kalachuri, and took refuge in the south at Aṇṇigeri. Kannada history is obscure at this period, shot through as it is by the religious intransigence of the Śaivite sect of the Liṅgāyat. In 1183, the

last Chālukya reconquered Kalyāṇi, but very shortly afterwards he himself fell victim to the attacks of the Hoysalas and the Yādavas.

Immediately, these two dynasties embarked on a struggle for the possession of the border country of their two domains between Tuṅgabhadra and Malaprabha, and in particular for Anṇigeri.

Chōla resurgence. The vigour of the Chōla dynasty, extinguished for a time about 1080, emerged renewed in a line of sovereigns in whom Chōla blood was allied with that of the Chālukya of Veṅgī, and who reigned at Kāñchī. Their Sinhalese vassals, however, bore ill the authority of foreigners in whom all was alien. They were alien in their speech, since the Sinhalese language belonged, unlike Tamil, to the Indo-Āryan group; and they were alien to their religion, since the Chōla tried to impose Śaivism in the most faithful stronghold of Buddhism. The Sinhalese took advantage of the dynastic vicissitudes to regain their independence. The province of Rohaṇa in the south-east of the island, had never been completely subdued, and from there the king Vijayabāhu I (1059–1114) embarked on the reconquest. He retook the capital Polonnāruva (nowadays Topawa Pandya), and followed this in 1073 by taking the ancient, still venerated, capital of Anurādhapura. In 1075 he had himself crowned independent sovereign of the whole island.

At the same period, the Pāṇḍya also moved to shake off the Chōla yoke and, a century after they had driven the invader from their island, the Sinhalese in the reign of Parākramabāhu I (1153–86), the founder of many monuments, turned the tables and set about invading the mainland. It was the beginning of the decline of the Chōla dynasty, which survived into the middle of the thirteenth century, but then lost control. In the thirteenth century the suzerainty in Tamil country passed to the Pāṇḍya.

In the second half of the thirteenth century, the Kākatīya dynasty which took power in Telugu country created a kingdom of which the capital was Kākatī, or Warangal, later to be known as Hyderābād.

Thus, around 1200, the political pattern of the Deccan as it had existed for nearly six centuries was completely broken up. In the place of two principal states, the one centred in Tamil country, the other bestriding the Marāṭhā and Kannada, four states now shared the power; the Yādava in Mahārāshṭra, the Hoysala in Kannada territory; the Kākatīya in the Telugu and lastly, in Tamil country, the Pāṇḍya. Overall a linguistic nationalism was being born. But in Hindustan infinitely more serious upheavals supervened.

Ghūr invasion. At the beginning of the twelfth century, the Ghaznavid possessions in India were confined to a part of the Punjab, and the successors of Mahmūd had shown little interest in the rest of India.

It was, however, the Punjab that served as a refuge for the last Ghaznavid when the princes of Ghūr, between Herat and Ghazni, seized Ghazni in 1173, sacked the town in which Mahmūd had accumulated a store of riches and burnt it. Mohammed of Ghūr, governor of Ghazni, triumphed first in 1175

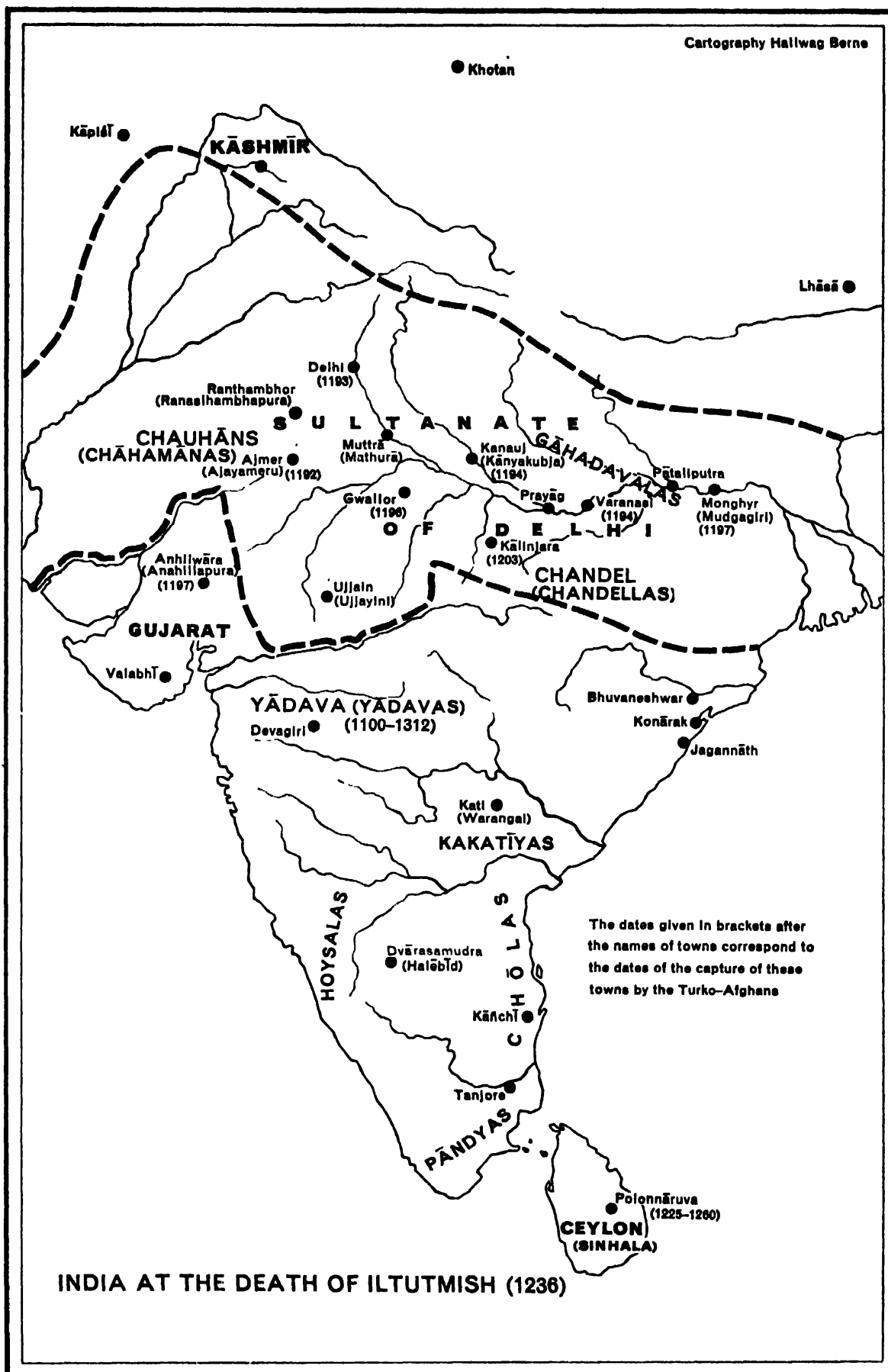
over the Ishmailians of Multān, was checked in 1178 by the Solāṅkī and then, attacking the descendant of Mahmūd, took him prisoner in 1186 and seized Lahore. In him was first conceived the ambition to create a Moslem empire in India.

The dynasties of Gāhadavāla and Chauhāna, who, in alliance, might have been able successfully to resist the champion of Islam, were, unfortunately, at odds; for the Chauhāna of Ajmer, the brave and chivalrous Pṛthivīrāja, had, in 1175, carried off the daughter of the Gāhadavāla Jayachandra. Then, at the moment when the Ghūrs were supplanting the Ghaznavids, he was engaged in a war with the Chandellas of Bundelkhand.

Jayachandra and Pṛthivīrāja (Jaichand and Pṛthvi Rāj, to give them their popular names) took the first shock of the Moslem onslaught. The king of Ajmer and Delhi first confronted the Turkish armies, with the aid of the Rājputs whom he had drawn into a coalition, but without the aid of the Gāhadavāla. At first he was victorious when in 1191 he won the battle of Tarāin, in which the Sultan nearly lost his life. Mohammed withdrew to Ghūr, but only to prepare a new expedition. The two armies met again near Tarāin, in the region between the Indus and Ganges basins, which had already seen the conflict of the Kuru and on which the fate of India was more than once decided. It was not far from Thaneśvar, homeland of Harsha and Pānīpat, where, later, Babur and Bahrām Khan were victorious and the Marāthā confederation collapsed. The Indian coalition was crushed. The victor captured and executed Pṛthvi Rāj, whose son, in Ajmer, recognized Moslem suzerainty. Delhi fell at the beginning of the next year and Mohammed made it his capital. In 1194 the capitals of Gāhadavāla, Kanauj and Banāras were all sacked and Jaichand suffered the fate of Pṛthvi Rāj. One of Mohammed's lieutenants, Qutb-ud-Dīn, was appointed governor of India and continued to accumulate victories, taking Anhilwāra in 1197, and Kālīñjara in 1202. Another of the Sultan's officers led a raiding party of 200 horsemen into Bihār, where, massacring and burning, he dealt the last blow to Indian Buddhism, still protected by the Pālas. Then he turned to Bengāl, where he narrowly missed capturing Lakshmaṇasena, who somehow contrived to escape.

Turkish domination. The whole of the north of India was now under Turkish domination. The losses were incalculable: warriors, scholars, artists, monks, had been massacred, works of art and libraries destroyed. A whole civilization was threatened with extinction.

When Qutb-ud-Dīn died in 1210 the Indo-Ganges plain was almost entirely in Moslem hands. Kāshmīr, up in its mountains, remained a centre of Indian culture, predominantly Śaivite, though Buddhism, in contact with nearby Tibet, was still flourishing. In Kāthiāwār and Gujarāt, which remained independent, the house of Solāṅkī was replaced, in about 1230, by a new dynasty, the Vyāghrapati. In the advance posts in the Deccan, the Kalachuri house, split into two branches, put up only a token resistance. But, even in the con-



MAP XVI

quered regions, Hindu culture lived on; it requires more than a few centuries for the thousand-year-old traditions of civilization to be eliminated. Yet, in the century that followed, there were to be catastrophic changes.

The Delhi sultanate, however, with internal difficulties arising, was also soon to face the Mongol invasion. Mohammed of Ghūr had scarcely begun to organize his conquered territories when he was assassinated (1206). But Qutb-ud-Dīn took the title of sultan, and upon his death, four years later, a Turkish slave, Iltutmish, re-established the momentarily compromised unity of the sultanate and showed himself a remarkable administrator.

In 1221, still in the lifetime of Iltutmish, Jenghiz Khan pursued the sultan of Kharezm, the younger Jalāl ud-Dīn to the Indus and Sind was devastated. In 1241 came a new and more serious incursion; Lahore fell to the nomads. The time had come to organize serious resistance, to recruit and train large armies and to build numerous fortresses. This task was undertaken by Balban, the energetic minister of a feeble king, son of Iltutmish, who devoted his life to the struggle against the Mongols and—a rare virtue—awaited the natural death of his sovereign before taking upon himself the title of sultan. At his death, after a short period of confusion, the army entrusted power to a Turko-Afghan of the family of the Khalji, the elderly Jalāl ud-Dīn, who, having defeated the Mongols on the field of battle, then authorized them to establish themselves on Indian soil.

Alā ud-Dīn. Jalāl ud-Dīn's nephew, Alā ud-Dīn, renewed the war against the independent Indian princes, after a respite of nearly a century. In 1249 he attacked the king of Yādavas, Rāma Chandradeva, defeated him and exacted huge quantities of jewels and gold from him as tribute. Then, having taken the precaution to assassinate his uncle, he seized Gujarāt and several Rājput cities. Having finally vanquished the Mongols after the terrible expedition of 1298, he entrusted his slave Malik Kāfūr with the conquest of the Deccan. First Devagiri fell; then Teliṅgāṇa was invaded in 1309; and, in 1310, it was the turn of the Tamil country. This time the whole of India was, in theory—but in theory only—under Moslem rule. In 1310, only Kāshmir had been spared; but it, too, was shortly to succumb under simultaneous blows from the Moslems and the Tibetans of Ladakh. Now it was that there emerged from amid so much ruin, the Dravidian empire of Vijayanagar (1316).

South-east Asia

The history of Indianized South-east Asia, so brilliant under Airiaṅga, Sūryavarman I, and Anōratha, showed also a marked trend towards decline from the beginning of the fourteenth century. After the three great reigns, Cambodia, Java and Burma remained the protagonists in South-east Asia, but succeeding sovereigns immediately came up against grave difficulties.

In Java, as we have seen, the kingdom of Kadiri held supremacy over the former possessions of Airiaṅga until, in 1222, a prince of Tumapel triumphed

over the Kadiri sovereign and created a dynasty, which reigned first at Tumapel, then at Siñghasāri and finally at Modjopahit.

Unrest in Burma. Anōratha's successor on the Pagan throne allowed Pegu to escape from him and it was left to the next sovereign, Kyanzittha, to re-establish Burmese greatness. He protected religion, welcomed exiled Indian monks, and maintained diplomatic relations with China. His reign saw the consecration of the temple of Ānanda at Pagan, which was begun in the reign of Anōratha. The grandson of Kyanzittha, Alaungsithu, who succeeded him in 1112, was a great builder of temples, but after him, from 1137 on, Burma was swept into disorder and anarchy. To begin with, a Mon monk, who occupied the throne at the end of the twelfth century, set about restoring the Theravada orthodoxy; this was followed by schism in the Burmese church, brought about by two foreign monks, one from Kāñchī, the other from Cambodia, who tried to force the Burmese monks to accept ordination from Ceylon. Dissension among the monks lasted for two centuries. A succession of sovereigns, some pious, some cruel and brutal, followed each other until the moment when Kublai Khan chose to demand tribute from Burma. The result was war, the taking of Pagan, and then, some years later, a new Mongol incursion, which was catastrophic for Burma; hundreds of pagodas being razed to the ground. It seemed for one brief moment that peace had been re-established, but then the Mongols once again occupied Pagan, and Burma fell under Chinese suzerainty. In lower Burma, an independent state under a Cham adventurer was created. It survived until 1539, although it had become a vassal of Siam in 1350.

Khmers and Chams in Indo-China. In Indo-China, hostility between Khmers and Chams and the position of Champa between Khmer ambition and Vietnamese belligerence produced an absence of coherent policy on the part of the Cham kings. On the one hand, this contributed to the weakening of Cambodia and on the other led, in the fifteenth century, to the total disappearance of Champa, which was submerged in Vietnamese expansion. The Chams, who lived mainly by piracy, could neither accept the suzerainty of their Khmer co-religionists nor forgo the provocative pillaging expeditions that brought down punitive retaliations upon them, whether from north or west.

Cambodia nevertheless had its moments of peace and prosperity. Sūryavarman II (1113–50 approximately) reduced Champa to vassalage, and attacked Dai-Viet, against which he sent a fleet of 700 ships. He scored major successes in Siam and carried Cambodian dominion to the frontiers of Pagan. The finest claim of Sūryavarman II to glory, however, rested on something more durable than military conquest. He is famous for the building of the temple of Angkor Vat and the temple of the Apotheosis of the sovereign, identified after his death with Viṣṇu. The Champa-Cambodia conflicts continued over a quarter of a century, until Champa, now allied with Dai-Viet, took Angkor, sacked

the town and executed the king, refusing according to the Chinese writer, Ma-tuan-lin, to listen to any peace overtures.

This was a particularly tragic phase in Cambodian history, but it ended with an extraordinary recovery. In 1181 a young prince drove the Chams from Cambodian territory, restored unity to the country, and was crowned Jayavarman VII. He turned out to be the most remarkable man in Cambodian history, a great Buddhist sovereign, comparable to Āśoka or Harsha. Jayavarman uninterruptedly pursued the war with Champa, which he twice subdued and which from 1203 to 1220 was a Khmer province, and did not neglect any opportunity to extend his political influence, which was operative over part of the Malay peninsula and as far afield as Burma. He was also responsible for the construction of the most impressive array of monuments in all south-east Asia, and an array of temples, of which Bayon is not only the most famous, but also the most astounding, with its forest of faced towers. He multiplied social foundations. The first ten years of his reign saw the building of 102 hospitals; a little later, as stelae mention, 121 relay shelters. In all this, this great sovereign was striving to put into practice the ideal of the Great Vehicle, with a fervour doubtless owing not a little to his second wife, Indradevī, whose learning 'surpassed the learning of the philosophers' (as is written in an inscription) and who taught in a monastery. It is through an inscription in Sanskrit by Indradevī that so much is known of the personality and life of her husband. There are numerous stelae also, which, together with the reliefs of the Bayon or the Banteay Chmār, yield valuable information about Cambodia around 1200. One of these documents confirms the far-reaching prestige and influence of Cambodia and its position in the cosmopolitanism of south-east Asia; a foreign 'Brahman scholar' came to Cambodia, drawn there by the country's reputation for 'excellent knowledge of the Veda'. He was raised to the dignity of chaplain to the king, which office he retained under two of Jayavarman VII's successors. The magnitude of the work of this most magnificent of the Khmer kings undoubtedly had its effect on the decline that followed that almost too brilliant reign. A Cambodia already impoverished by war was exhausted by Jayavarman VII's grandiose architectural programme. After him the country's glory dimmed rapidly. In 1216 and 1218 (when Jayavarman VII may still have been alive) the Cambodians undertook additional campaigns in northern Annam; in 1220 they were evacuating Champa.

The Thai penetration. At that juncture, the Thais of Yunnan began to infiltrate along the rivers towards the south. They got as far as Luang Prabang and even Assam. Meanwhile, in 1253, the Mongols annexed Yunnan, and their appearance, if it did not trigger off the Thai movement to the south, certainly encouraged it. From then on the Thais directly threatened Khmer power as the Vietnamese, ruled since 1225 by the Trần dynasty, threatened Champa. Henceforth the two old enemies stopped their conflicts.

But the course of Cham history presents a striking contrast to that of the

Khmer country, as archaeology eloquently confirms. The Chams, even as they withdrew before the waves of Vietnamese invaders, continued to build right up to the seventeenth century. In Cambodia, on the other hand, after the climax reached in Jayavarman's reign, this activity declined, and in the thirteenth century the architectural genius waned.

In the second half of the thirteenth century, the Mongol excursions and the advance southwards of the Thais to Menam and Burma are the two events that dominate the history of greater India. The Thais had, two centuries earlier, infiltrated into the north of present-day Thailand, where the Khmers knew them as Syāms. In the second half of the thirteenth century, the Thai princes, who were established in the north of the Mon kingdom of Haripuñjaya, joined forces, recommenced the movement southwards, overthrew Mon domination in Haripuñjaya, and founded new capitals at Ch'ieng Ray and Ch'ieng Mai. The Thais who were settled in the region of Sukhōtai on the Middle Menam also asserted their independence. Lop'buri, an outpost of Khmer civilization, alone escaped Thai domination, retaining a partial independence into the middle of the fourteenth century. The Thais, too, were responsible for the downfall of Śrīvijaya; they took possession of the Malay peninsula, just about the time that Kṛtanagara, king of Singliasavi, in east Java, attacked Sumatra.

Kublai Khan is checked. The khan came in response to a call from the emperor of Dai-Viet and Cambodia simultaneously, but victory did not go to the Mongols. The Vietnamese opposed their passage, the contingent sent against Cambodia was taken prisoner to a man and an attempted landing in Champa failed. Nevertheless, Cambodians and Chams had grasped the seriousness of the danger and judged it prudent to come to terms with the khan.

The Mongols in Burma. In the meantime, the Burmese had suffered a first attack. Mongol aggression was particularly severe in Burma. King Narathihapate who had built, before the trouble, one of the most important Burmese mountain temples, concentrated on the defence of the country, not scrupling to pull down pagodas to use their materials for fortifications. He failed, however, to prevent the sack of Pagan, the advance of the invaders, or internal anarchy. He was obliged to yield, securing a precarious peace in so doing, but he was assassinated and the war was resumed. Pagan was again pillaged and the Thai invaders were left to rule a fractionalized country under Chinese sovereignty, while the Mons were confined in the delta.

In Java, the power established by King Kṛtanagara was a source of uneasiness to his neighbour, the king of Kadiri, and the Mongols thought to profit by this situation. Kṛtanagara's successor, Raden Vijaya, allied with them against the king of Kadiri, but afterwards drove them into the sea and, at the very end of the century (1292), founded the important kingdom of Modjopahit.

The end of an epoch. Events in South-east Asia at the turn of the thirteenth

century thus formed part of a series which closed a phase of history; nor were such events entirely independent of the upheavals in the Euro-Asiatic world as a whole. The Moslem grip on India cut off the Indianized Far East from the flow of sap that had hitherto continually nourished it and the old indigenous background itself everywhere broke through the veneer of Hindu ideas, which had been the thin skin of Hinduization imposed by a social and cultural aristocracy. The old Sumatranese kingdom, economic and cultural meeting-place of metropolitan India, Indochina and Indonesia, crumbled and at the same time Islam began to gain a footing in Sumatra. Cambodia, well known in this period from the description of the Chinese Chou Ta-kuan, was still in full splendour, yet its history was done. In Champa, Jaya Simhavarman IV, who mounted the throne about 1280, was a great sovereign who once again repulsed the Mongol incursions, but after him Champa became, for a time, simply a province of Dai-Viet; so ran the uncertain, ever-threatened life of this state, the disturbing vitality of which nevertheless persisted into the eighteenth century. In Java, Hindu civilization persisted in the east of the island, at Mojopahit, up to the tenth century, but withdrew to Bali when Java was invaded by Islam. It was henceforward the Thais who were politically predominant and at the end of the thirteenth century a great king, Rama K'amheng, was reigning in Sukhotai. Sinhalese Buddhism, implanted in Burma, became the religion of the Thais and gradually ousted from Thailand, Cambodia and Laos, all other religions. It assured the permanence of a form of the Indian spirit in this south-east sector of Asia, which welcomed the religion of the Blessed One, the inaugural force of Indian expansion, at the moment when it was eliminated from India proper by the hostile forces of Hinduism and Islam.

2. BERBERS, TURKS AND MONGOLS

A. Spain and the Maghreb

In the west the general picture was one of confusion. Spain was not strong enough to combat the Christians alone, and when the Berbers came to the rescue they brought with them a rigid programme for the re-establishment of Sunnism.

The territories making up what is usually called north Africa constituted a geographic unity, but the rivalries of the tribal inhabitants almost invariably prevented Tunisia, Algeria and Morocco from merging into one kingdom. Certain causes succeeded in achieving a momentary union, but no powerful dynasty was ever able to govern the whole territory for any length of time. There was a threefold division with no clearly defined borders; the line of the river systems, indeed, was east to west, and roads within the region ran in the same direction, threading their way through mountain ranges. The tripartite division, which had been made by the Romans, persisted. The lack of unity

became, at certain periods, more accentuated as different religious creeds set groupings against each other; some of the tribes were Sunnites, other Shiites or Kharijites.

Mountain ranges were higher in Morocco than in Tunisia or in Algeria, and Morocco retained, in consequence, a rather more individual character, for the Berbers, on the strength of the inaccessibility of their homeland, preserved jealously their sense of independence. It was thus chiefly the Moroccan rulers who sought to unite north Africa under them; attempts from other quarters were rare indeed.

This whole region, then, was a block that refused to conform to the eastern pattern of obedience. Eastern ideas doubtless found their way in, but they met with success only when advocated and re-formulated on the spot by a leader with some measure of authority.

A few proper names should be mentioned here, since the history of this country in the medieval period is that of the tribes who successively rose to power. The Fatimids had leaned principally on the Kotama and the Sanhaja. A considerable opposition to them came from the Zenata, who almost brought about the destruction of the dynasty, and then turned to the Spanish Umayyads.

When the Alids betook themselves to Egypt, Fatimid Barbary went, as a reward for services rendered, to the chief of the Sanhaja of the Zirid family. This family was to play a dual rôle—they not only governed the kingdom but also held it firm in the face of possible attacks from the Zenata.

The Zirids made short work of their vassalhood, and established fresh contact with Baghdad. The first Fatimid minister, Yazuri, attempted briefly to put affairs back on the old footing by means of diplomatic documents, but, when he saw this was not possible, planned vengeance. Two Arab tribes, the Banu Hilal and the Banu Sulaim, whose raiding was the curse of upper Egypt, were invited to go to north Africa. This immigration of the rapacious Bedouin was a veritable catastrophe for north Africa, the last straw in a situation of agricultural crisis, accelerating deforestation and jeopardizing the economic balance of the country for long years to come.

The Zirids had tried to direct their energy to seagoing activities but the time was not propitious. In 1091 the Northmen had taken Sicily and before long they were in control of the western Mediterranean. They even embarked on the conquest of the African ports. In 1148 they finally took Mahdia in Tunisia, whence the last Zirid prince fled.

In Spain the Umayyad monarchy was not enjoying a peaceful existence; there were risings instigated by rivals, clashes—aggressive or defensive—on the frontier, intrigues for power and conflicts between the court and the austere Malekite jurists. The northern areas suffered severe attacks, with first Pamplona, and then Barcelona, falling to the Moslems. Yet, in spite of this, a period of incredible luxury in the style of the east, whence Cordova had derived its culture and way of life, now opened. A prominent figure was the musician

Ziryab, by origin a Mesopotamian, a consummate artist and an excellent technician, who did not disdain to compose culinary recipes!

During his reign the caliph Abd al-Rahman III reduced to submission the Christian princes of the north, who were to undergo some bloody reverses. No doubt the territories remained unchanged, but the Moslem raids put an end for a time to the aggressive ambitions of the Christians who, however, in 939 were to take their revenge at Simancas.

The Umayyad had raised his standard against the other caliphs by proclaiming himself the emir of the faithful, the motive for which action some writers have professed to find in the decadence of the Abbasid caliphate and the disquieting rise of the Fatimid.

At the end of the tenth century, Moslems in Spain were still of a markedly aggressive spirit. They had not been able to prevent the establishment of Christian principalities along the northern periphery, but devastating raids followed, in which the Moslem armies ravaged Barcelona and, on the far side, León, Santiago, Zamora and Coimbra. The caliphate dominions were extended and, more important, the Christian princes were put on the defensive.

The Spanish caliphate broke up, following a series of anarchic upheavals which not only dethroned the Umayyad caliph in 1031 but divided the country. The territory suddenly appears wildly and improbably divided; the peninsula, as an Arab writer puts it, 'being shared among those who could take on any part of it'. The need for a caliph was still felt at this time, and there is here an interesting fact to record: the minor princes, who took no notice of the imamate, accorded recognition to the Baghdad dynasty as a symbol, refraining from mentioning the names of the reigning caliph—a profession of faith rather than a sign of direct homage as vassals.

The weakness of Moslem Spain positively invited Christian attack; this accounts for the intervention of the Almoravids in the peninsula. They brought not only military assistance but also a programme of religious reform, directed to the re-establishment, not without brutality in the method, of a certain style of orthodoxy. Islam, then, which had come to Spain with the Berbers, retained its hold there from the eleventh century only thanks to Berber support, to be driven out as soon as the Berbers no longer wished or were no longer able to involve themselves in its problems.

The national dynasty that was to control the destinies of part of eleventh century north Africa came of a great Sahara tribe, and the dynasties henceforth were to be neither Alid nor Kharijite but Sunnite or Berber. This development was fundamentally different from the course of events in the east, where Arab power gave place to a Turkish military clique, which, though it made use of civilians, nevertheless held them firmly in their place. In the west a sort of sacerdotal and national hierarchy emerged.

No sooner had these champions of Islam succeeded in founding a kingdom, the capital of which was at Marrakesh, than an appeal for aid came from the Moslems in Spain, who were still smarting under the loss of Toledo, centre

of luxurious living and literary activity. The Almoravids rallied ungrudgingly, but, even as they made their successful re-entry against the Christians, marked by the victory at Zalaca in 1086, they were establishing their own direct authority.

Almoravid political power proved ephemeral and the renaissance they had inaugurated equally so. Once again religion provided grounds for the overthrow, a religion expounded by a new preacher of great energy. The propaganda was national, supported by tribes of the Atlas, and the leader declared himself a Berber prophet; whence the emergence, in the middle of the twelfth century, of the dynasty of the Almohads. They made an attempt in Spain to check the Christians, but their army, at first victorious at Alarcos in 1195, met with disaster in 1212 at Las Navas de Tolosa. Beyond all doubt, this double decline of the Berbers had its ill consequences for the brilliant civilization flourishing in the Peninsula.

The Almohads had contrived to unite the whole of north Africa under them for a brief span, but, in the first half of the thirteenth century, Tunis, under the Hafsid dynasty, seceded. Another principality, that of the Abdalwadids, sprang up at Tlemcen, and Morocco proper saw the establishment of the Merinids, a family of Zenata origin.

B. The Seljuk Turks

For a hundred and fifty years aspirants for power had entertained but one ambition, to hold the caliph in their power. Religious requirements, it is true, still gave authority in Islam in principle to the prince holding Baghdad, the residence of the caliph. But his position was a precarious one, and when a dynasty seemed to threaten the caliphate, his one concern was to incite others against it. Thus it came about that the Safarids put down the Tahirids and the Safarids were, most opportunely, attacked by the Samanids.

For a century and a half the Samanids did battle against the nomad Turks of central Asia. These barbarian tribes had, as mercenaries, swelled the forces of the caliphate. Their unruliness was as much a thorn in the Samanid principality's flesh as in that of the Chinese empire. In the somewhat confused picture presented by these steppe peoples, two groupings, the Qarluq and the Ghuzz, are to be distinguished for the significance they had for the history of Islam. The Qarluq lived around Kashgar in Chinese Turkestan and the end of the tenth century saw their mass conversion to Islam. This coincided with the accession to power in China of the Sung dynasty, which, in its anxiety to establish the strictest order, drove out the nomad tribe. The Qarluq succeeded in infiltrating as far as Bukhara, whence they swarmed across the whole of Transoxania. They were grouped under the authority of the Karakhanids, who are of importance in the eyes of historians as having founded the first Turkish Moslem dynasty. These Turks always established themselves in three stages: 'devastating raids which reduced the population to a state of eagerness to submit, sub-

mission to a lieutenant whose task it was to take precautions in case danger still remained, and finally the entry and taking possession of the sovereign'. (Claude Cahen.)

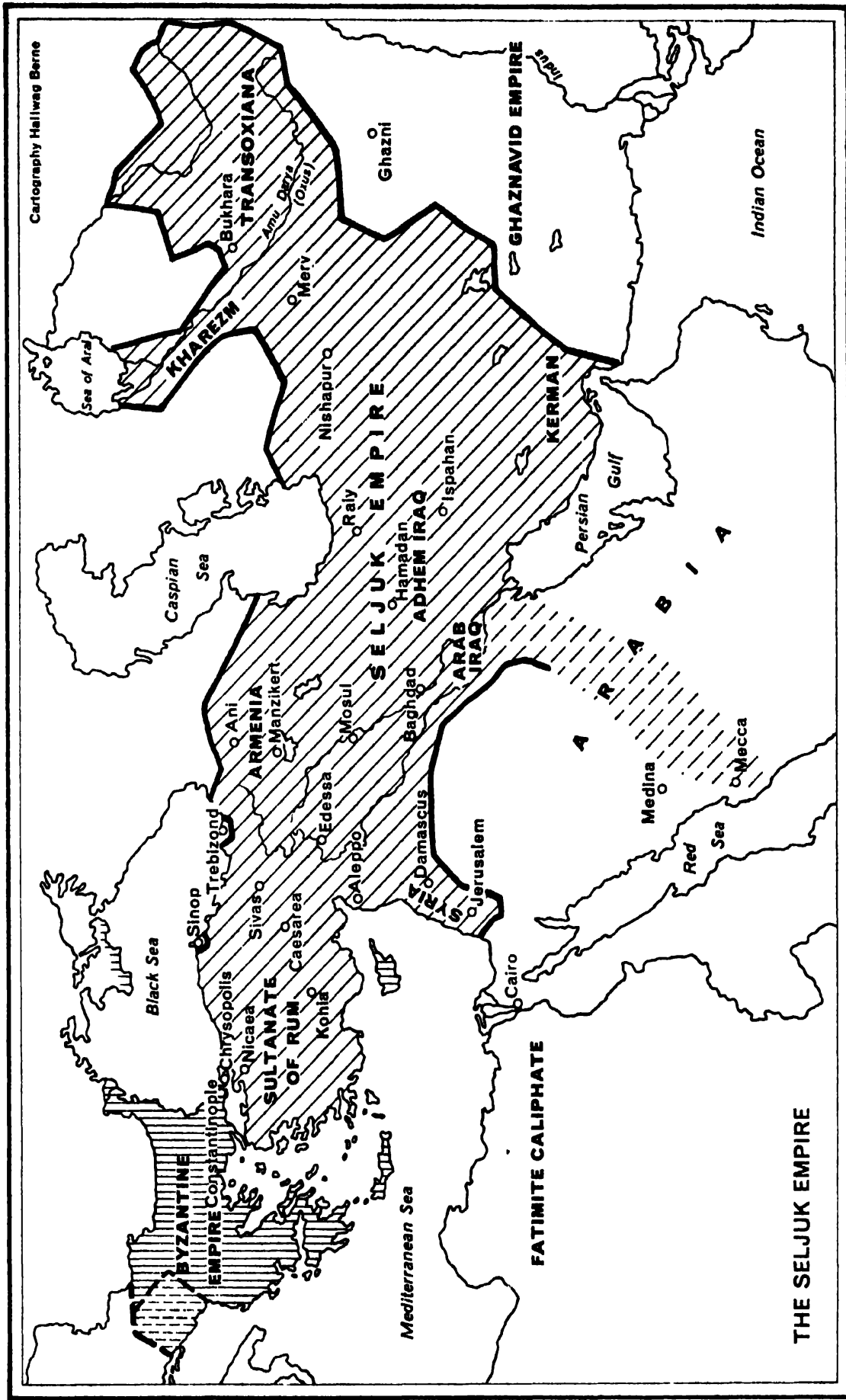
A man called Seljuk commanded the Ghuzz tribes, turbulent and hungry for plunder, and, in the course of the tenth century, converted to Islam. They were a source of anxiety to the Sultan Mahmud of Ghazni, who, to be rid of them, moved them across the Oxus and left Kharezm to their mercy. In 1038 all these Ghuzz tribes were giving obedience to a grandson of Seljuk, Toghrul-Beg, who was endeavouring to bring them under some sort of discipline. He entrenched himself in power at Nishapur and from then on the Seljuk forces proceeded unchecked; for events in Mesopotamia came suddenly to a head, and, without any resistance being offered to them, the Seljuk forces advanced to the frontiers. The caliph was forced to resort to negotiation.

Then, while the Fatimid caliphate ruled in Cairo and their propaganda reached as far as Baghdad, the Seljuks set about recreating in the Sunnite world the cult of the Will. Incidentally, they were responsible for the popularization of the title of sultan, which was first borne by a Ghaznavid. The effort of the Seljuks was made in three stages: in 1055 they became the protectors of the Abbasid caliph; in 1071 the battle of Manzikert precipitated the decline of Byzantine authority in Anatolia; in 1078 they were in Damascus. These facts indicate the nature of the Seljuk programme more effectively than any commentary. It consisted of war on internal heresy, particularly against Shiism, and the reopening of the holy war against external enemies. This holy war prompted their advance into Asia Minor, where they were to found an empire, with its capital at Konia. (Map XVII.)

It was given to the Seljuks to reconcile the various elements among the Moslems, among whom amity had for some time ceased to prevail. In Iran they regained the power, if not the title, of the Great King, with increased authority over the vassals. From now on, an intelligent, methodical organization put into effect policies which were both energetic and prudent. So well planned was the system set up that later Moslem régimes in Egypt, the Ayyubids and the Mamelukes, retained their administrative ideas and maintained their ceremonial titles.

The Turkish invasion of Anatolia was of an importance equal to, if not exceeding, that of the Arab conquest, for the immediate future of Christianity as well as for the destiny of Islam, which it profoundly affected. Islam recovered its original unity: for the community had to face two dangers, disintegration internally as a result of Fatimid disorder and, soon, of the Christian Crusades.

The situation of the minor princes of Mesopotamia and Syria at this period, who were on the border line between Shiism and Sunnism, was a more than delicate one. Political alignment was determined by the personal interest or religious conviction of the local rulers, by the adherence of the people to one or other doctrine or by factors connected with trade. The Turks were the



uncompromising upholders of Sunnism, and, like good policemen, they kept a close eye on the observance of the law.

Seljuk organization, then, meant the re-emergence of a forceful Islamic policy. The Crusaders were subjected to incessant attack, and the Syrian princes began to think that Christian presence in the Orient was not one of the inevitable facts of life. For the Franks, the Syrians increasingly became an object of dread, the more so as their cohesion grew daily. The Moslem feeling of solidarity was strengthened by a feeling of superiority, which was fostered not only by the influence of the madrasa, but also by the mystic brotherhoods, whose members, far from shutting themselves away in cloisters, went about among the people, extolling the Faith.

Certain Seljuk vassals installed themselves in northern Syria, with the dual mission of re-establishing orthodoxy and driving out the Crusaders. It was thus that the princes of Aleppo were called upon to intervene in Shiite Egypt, a request which heralded the advent of Saladin. Sunnism was now regenerated and the attitude to the Crusaders stiffened.

Saladin, the founder of the Ayyubid dynasty, was a great soldier: the blows he aimed at the Franks were shattering and he struck at the very heart of their kingdom by taking Jerusalem. But he could not complete his work. He had no navy, he had insuperable financial difficulties to contend with and his officers lost their will to fight.

Saladin's empire had been the largest ever ruled from Egypt. To keep it in even reasonable order, he had to lead the life of a nomad; for the rest, he had to rely on his personal ascendancy. His death brought into the limelight all the petty jealousies of the numerous minor Ayyubid princes, who spent their time making and unmaking alliances and searching out each other's weaknesses. Saladin's successors are known principally as negotiators, negotiating being, indeed, what they were best at, and for which the Moslem world can scarcely reproach them. Members of the Ayyubid family ruled Egypt, Syria, Mesopotamia and the Yemen; but they mistrusted one another, and in consequence were led to pursue a faint-hearted policy, and to make truces with the Franks.

The revolution, or rather, the coup d'état, which, before the eyes of a terrified St Louis, put an end to Ayyubid power, was undoubtedly terrible; but it must be admitted that it ended the vacillation towards the threat of the Crusaders. The Mamelukes, the slaves who were not only the instigators of the insurrection but also its beneficiaries, took power in 1250 on the field of battle at Mansourah.

One of the founders of the new régime had to contend with terrible dangers; but this was Baibars, a strong man, who contrived to impose his authority despite all attempts to overthrow it. Some idea of the difficulties which he had to face may be gained from the confusion which followed the fall of the Baghdad caliphate, the various alliances which were made between Crusaders and Mongols, the ever-dangerous plots of the dispossessed Ayyubid princes and the personal ambitions of the great Mameluke officers—surely enough to

dismay the most seasoned campaigner. Baibars' achievement stands out all the more remarkably against such a background.

The contribution of the Mameluke sultans was not entirely original: they were mainly concerned with putting into practice ideas conceived before them. First, they continued, and even accentuated, the practice of government by the military, which now took on definitely greater importance than the civil administration. Secondly, as the Ayyubids had gone some way to proving that a united Egypt-Syria state was viable, the Mamelukes set out to complete the operation. To do this, they made changes in the old administrative system, but it is notable that the Syrian principalities continued to exist almost intact under the new dispensation. Lastly, the new régime gave a clearer form to the pan-Islamic character of the preceding dynasty. The Mameluke sultans, retaining for themselves the title of 'Sultan of Islam and the Moslems', bestowed on the Egyptian state that of 'Islamic Empire'. It is true, however, that thanks to a stroke of genius on the part of the Sultan Baibars, the Mamelukes held the Abbasid caliph in Cairo. Though perhaps they showed little regard for his person, as representing a now outworn authority, they were nevertheless aware of the increased prestige accruing to Egypt from his presence.

In the east, a formidable danger had been threatening for some thirty years. The vast Seljuk empire had disintegrated, only the branch in Asia Minor surviving at Konia. Western Persia and Mesopotamia had become separate principalities, the vassals who at first ruled them in that capacity having given their families a princely look by calling themselves *atabeks*, or regents. These ruling families did not play a very important part in political history, but their courts were centres of intellectual life; it must suffice to recall here the names of two great Persian writers of the time, Nizami and Saadi.

In eastern Persia, Seljuk power had crumbled before the attacks of the shahs of Kharezm, whose several dynasties had succeeded each other over a long period in the region south of Lake Aral. Suddenly they found themselves masters of a great empire, covering, apart from certain areas of central Asia, three-quarters of the territory of Iran. The shahs of Kharezm cherished an ambition—unrealized—to dictate their own conditions to the caliph of Baghdad.

C. The Mongols

It was just at this juncture, however, that the unification of Mongolia was accomplished by the redoubtable Jenghiz Khan, who now turned his attention to the neighbouring empire. The Kharezmian armies, defeated and put to flight, turned on their immediate neighbours to the west, and a dark era of brigandry ensued, the unbridled Kharezmian bands making their way as far as Jerusalem. Panic reigned from Cairo to Baghdad, intensified by the fact that the Mongols had penetrated into upper Mesopotamia and Armenia. The caliphate was, of course, accustomed to such crises, but this time the invaders

were not Moslems. This first Mongol irruption represented in its initial savagery a reversion to barbarism, as witness the destruction of certain cities and many libraries. 'In the accounts of the chroniclers, the Mongol conquest appears as an earthquake, one of those uprisings from the depths against which humanity's frail defences are as naught. Everything was all at once in danger'. (René Grousset.)

Westward Advance: The Conquests of Hulegu

The Mongol threat to Islam increased and it was not long before Hulegu had founded a Mongol state in Persia. His imperialist aims were made apparent almost at once, and in stupefaction the Moslem world learned that the Mongol conqueror had taken Baghdad and put an end to the Abbasid caliphate, executing the caliph Musta'sim on 10 February 1258. The régime thus terminated had already come to exist only in theory; the caliphate had ceased to be of any great moment. Now the Mongol invasion shattered the Moslem world and fell as a fatal blow on the rising Arabic language culture.

Ten years later, Hulegu was in Syria; the citadel of Aleppo made a vain attempt at resistance and soon the Mongols were in Damascus. The situation was the harder for the Moslems to accept because Hulegu seemed to protect the Christians. The Mongol army numbered in its ranks, besides some Buddhists and Moslems, a certain number of Nestorian Christians. The first Mongols accordingly presented themselves as friends of Christianity.

The directing of the Mongol troops into Syria had been a move made at the request of the Crusaders and the king of Armenia, of which nothing has been said since the Arab conquest.

Armenia remained ill-fated and, as in the past, the Armenians continued to lead a precarious national existence between two powerful neighbours. Their existence was precarious, perhaps, because the people preferred it that way: at any rate, the Armenians eventually obtained from the Abbasid caliph the recognition of an Armenian 'prince of princes'. But there were several lords ruling in Armenia—the eternal weakness of this country—the most important being the Bagratids.

The arrival of the Turks in Armenia had led to considerable emigration, and at the end of the eleventh century a near relation of the reigning Bagratid prince founded an independent principality in the broken, almost inaccessible country of Cilicia. These princes, the Rubenids, rendered very great service to the Crusaders, who were responsible for the birth of a kingdom which took the name of Little Armenia, with its capital at Sis.

It was then that, in the hope of serious co-operation with the Franks, Armenia took the initiative of sponsoring an independent policy, which Denis Sinor has brought so clearly into focus. King Hehtoum I, a sovereign of unusual intelligence, perceived clearly that alliance with the Mongols was, for the Frankish colonies and for Christianity in Asia Minor generally, the one and

only hope of salvation. It was not only indispensable if victory over Islam was to be assured, but in addition it was the simplest, if not the only way to avert the threat from the Mongols. To canalize Mongol military force against the Moslems, to weaken the Mongols by constant Christian infiltration, and so to bring about simultaneously the survival of Christian communities, the defeat of Islam and, perhaps, the conversion of the Mongols themselves—such were the principal objectives of Armenian policy.

To meet the Mongol menace, which she saw only too clearly, Egypt mobilized all her available forces. A bloody encounter took place at Ain Jalut in Palestine; the victory went to Egypt and was decisive.

Persia remained under Mongol rule, which was as beneficial there as it had been disastrous in the Near East. Hulegu created an immense empire, stretching from the Amu-Darya to the Euphrates and from the Caucasus to the Indian Ocean; his capital, Meragha, east of Lake Urmia, was a great centre of scientific activity.

Hulegu's son and successor, Abaka, married a daughter of Emperor Michael Palaeologus and made overtures to the Christian sovereigns of the west; his ambassadors, seeking an alliance, presented themselves at Lyons in 1274 and in Rome in 1277. The Khan Arghum also tried to form a Christian European alliance, and a letter of his to Philip the Handsome is worth quoting here: 'You write to me: when the armies of the Ilkhan shall march on Egypt, we shall set out from here to join forces with them. This message of yours we approve, and add that, putting our trust in God, we shall set out at the end of the last winter moon in the year of the Panther [1290], and that, about the 15th of the first spring moon, we shall encamp before Damascus. If you keep faithfully to your word, sending your troops at the time and to the place determined, and if, with the help of God, we take Jerusalem, we shall give it to you.'

Now came the greatest of the reigns of the Persian Jenghizkhanids, Ghazan, 'the friend and protector of the historian Rashid al-Din, who was to make a bid to revive the Iranian country devastated by the turmoil of 1221. Islam then became officially the religion of the Mongol Persian state. Ghazan's immediate order, on entering Tabriz the capital, was for the destruction of Christian churches, synagogues, Mazdaean fire-temples, and Buddhist pagodas. Ghazan had made himself irrevocably over to Islam, doubtless because he considered the conversion of his dynasty indispensable if it was to reign in Moslem country' (René Grousset).

A new invasion westward in 1299 got no further than Damascus; the Mameluke empire was in full strength, having, eight years before, succeeded in freeing itself from the Crusaders.

Eastward Advance: The Last Mongol Khanates

While in the west the Ilkhan Hulegu was carving from the *orbis mongolicus* an Iranian empire (soon to be a Moslem empire), his brother, the Qaghan

Kublai, was founding in the east a new Chinese empire, the land of dreams for Nestorian Christians and Buddhists. Between these new sedentary kingdoms, the old apanages of the steppes survived. The four original khanates bequeathed to his sons by Jenghiz Khan continued in their nomadic way of life. There was Jochi, now the khanate of Kipchak, which was split into two parts, with the Golden Horde in the western half and the White Horde in the eastern half. It entertained no ambitions towards supremacy, although it was the senior branch of the family. The geographical position of this Turkized kingdom involved it in western politics, and a system of alliance with the Mameluke sultans was intended to hold in check the agnate realm of Hulegu of Persia. The khanate of Toluy still mounted guard in the capital of Karakorum, since Mongke (1251) the seat of the principal branch of the line of the Great Khan. The two centrally situated khanates, Chaghatai and Ogodai, stood as the strongholds of Mongol tradition, unmoved by all the attractions of civilization, whether evinced by their western vassals in Transoxiana or their Uyghur vassals to the east. The rivalry between them ended with the triumph of Qaydu, Ogodai's grandson, who thus became sovereign over the old Nestorian and Buddhist lands of the former Karakhitai empire. For more than thirty years he waged ceaseless war to enlarge his empire and assert his claims to the qaghanate. Notwithstanding this violent activity, Qaydu pursued some well-considered policies. He chose to protect the agricultural population and the urban centres, sources of revenue and wealth, and to encourage religious tolerance. His sympathetic attitude to Christianity meant a welcome for Nestorian pilgrims en route for the west. After him, however, Chaghatai forgot its vocation. Its ruler Kebek (1320-6) concerned himself more with city than with steppe. He took a hand in the administration of his domain and introduced a unified currency as in the civilized khanate of Persia. Finally, he abandoned the religious eclecticism of his predecessors and became a convert to Islam. Though it had its momentary resurgences of life, the days of the khanate were numbered; the throne had gone over to Islam and now power was gradually taken over by the Turkish chiefs, among them the young Timur. Such was the end of the last Mongol sovereigns of the kingdom. What he left behind him was, once more, steppe; after many battles and many massacres, after many years of living next to pastoral neighbours, the frontier territories, the Chu and Talas valleys especially, lost their urban character, the towns so completely disappearing that in the sixteenth century their ruins were unidentifiable. The kingdom of Hulegu was Iranized and Chaghatai Turkized, while, at the same time across the continent, the house of the great Khan Kublai itself was becoming Sinicized.

Kublai Khan. After the death of Mongke (1259), his son, Kublai, charged by him with the conquest of China, proclaimed himself Great Khan from his residence in Chahar beneath the Great Wall. By disdaining the obligation to call the assembly at Karakorum he had left the way open for his younger

brother to have himself proclaimed Great Khan there. In four years, Kublai contrived to oust him, but the split in power had not encouraged the western tribes to remain faithful to Mongol unity. In the thirteenth century, indeed, they had become converts to Islam, and had refused to recognize the Khan's authority. In the fourteenth century, their independence achieved, they intermingled with the autochthonous population and adopted the Turkish language. This disintegration left Kublai master merely of the ancestral patrimony and the eastern territories. He consoled himself by carving out in the east the immense empire of China. By 1260, he had established himself in Peking. He soon made it his capital (*ta-tu*), or khanate town (*khanbalyk*). Conquest of the empire took twenty years and was achieved in the face of heroic Chinese resistance, demonstrated in particular in the defence of Siang-yang and Fanch'eng. Two Moslem siege-machine specialists had to be brought from Mesopotamia before these two towns would capitulate (1273). In 1279 he finally destroyed the great imperial fleet of Canton. Yet military activity for Kublai Khan did not end with these victories. Seeking suzerainty over Japan, he launched two campaigns between 1274 and 1281. He sent troops against Champa (1283), against Dai-Viet (1285-7), and lastly against Java (1293), but these expeditions were dismal failures. Over the same period he had to mount some ten counter-offensives against attacks by his rival in the west, Qaidpu. It was left, however, to his successors to defeat Qaidpu (1309), securing for the Yuan, the Mongol dynasty of China, suzerainty over territory stretching from the Yellow River to the Danube. The last Jenghizkhanid sovereigns of China, completely Sinicized and made soft by court life, sank finally into powerlessness. Their families foundered in perpetual rivalries, intrigues and killings. From 1340, their internal struggles took on an intensity that favoured the outbreak of revolts. The flooding of the Yellow River in the middle of the fourteenth century was the last straw. Led by the Red Turbans, an old Buddhist sect turned secret society, a series of risings began which was to set on the imperial throne a former Buddhist novice, the son of a labourer, who became the founder of the national Ming dynasty (1368-1644). Overthrow left the Jenghizkhanid masters indifferent. They fled to Mongolia, content with mourning Chang-tu, the cool, delightful summer capital. They left behind them the cruel memory of a century-long occupation and an economic, social and cultural imprint which was never to be effaced.

Mongol China. The exploitation of China by the Mongols was radically transformed with the advent of Kublai. Until the middle of the thirteenth century, the policy of the conquerors as regards northern China had been one of fragmentation. Land which had been distributed *en masse* among the families of the victors formed a number of new units under the control of a collector of taxes. This office was often entrusted to a Moslem merchant. These merchants did in fact enjoy great advantages, not only as merchants but also as westerners. They were classed with all those from the west in the social category,

immediately next to the Mongols themselves. The third category comprised the defeated Chinese and their Kitan or Jurchen companions in misfortune; the fourth, the most recalcitrant, were the Chinese of the south. The last two groups could hold no military command and no administrative authority other than local. Individuals could not make purchases in the bazaars or go out at night. They were a special case before the law and penalties for them were incomparably more severe than for the more privileged. Normal, already heavy, taxes were made heavier for them by Mongol taxes for the maintenance of roads and staging posts, the army and the court. The burden of the occupying power bore down even further still, with the obligation to provide horses as precious aides to the various modes of transport and to the working of the mills and the land. The requisitioning of these animals, together with the commandeering of peasant labour to act as porters or to do navvying work for army detachments, led to a considerable drop in agricultural production. The increasing exemption of religious institutions from taxation also accelerated the decline of the agricultural economy. The occupiers took little account of this. Leaving it to the Buddhist clergy to tutor and calm malcontents, they preferred to turn their attention to the possibilities of commerce. They had only to furnish the international merchants with capital, money, or jewels to receive goods and interest in return. Highly organized in autonomous corporations (*ortaq*), these merchants could meet all the requirements of the oppressor, thanks to the transport and route facilities the latter afforded them. But the source of capital depended on the taxes, which rested on the level of agricultural production. This was something Kublai was quick to grasp and he embarked on a policy of support for the peasants, taking the idea from the Sung reformers. Even before he had conquered southern China, he reunified the north, merging the different apanages with his own lands. Part of the revenues went henceforth directly to the court; the nobles no longer had the right to levy taxes; and the printing of paper money was centralized. The conquest of the south raised new problems, for this country with its 10 million households (about 50 million inhabitants) represented more than five times the wealth and population of northern China, and was organized much more on the basis of private property. To win the allegiance of the landowners, Kublai deliberately confined himself to substituting his authority for that of the Sung, without increasing levies. He inaugurated, further, a programme of reconstruction, creating a special department for the encouragement and development of agriculture (*ssu-nung-ssu*). Communities ranging from fifty to a hundred families were placed under the authority of an official responsible for the promotion of the yield from the land, irrigation, and sylviculture (reafforestation). As a priority, reserve stocks of grain were increased and rural education intensified. This political initiative was an attempt, then, to increase revenues, the better to pursue profitable commercial activity. With it, accordingly, went a vigorous policy of monopoly in salt, tea, spirits and metals and the raising of taxes on marketing and business transactions. Notwithstanding

the establishment of charitable foundations—hospitals, almshouses, and orphanages—the hand of the Mongol fell heavily on the land.

The accounts of travellers mask the real misery. The authors, usually missionaries or merchants, sang extravagant praises of the beneficence of Kublai Khan. Like all foreigners, they were received with great pomp at the court; they were well treated, often luxuriously; they were guided and cared for by foreign interpreters, Persian or Uyghur. As a result, they had little opportunity to see the sufferings of an oppressed people, to whom the Mongols cut a far less flattering figure. Nevertheless, the Chinese are not insensible of Mongol achievements and indeed think of this period as one of great commercial enterprise, about which we have the astonished comments of the travellers. The most famous of these, Nicolo Polo, his brother, Maffeo, and his son, Marco, astounded their contemporaries. Marco Polo's account pulled back a curtain on a world undreamed of, whose sovereign, master of China and Mongolia, was 'the most powerful man in people, lands, and wealth who has ever existed from the time of Adam'.

In the middle of the thirteenth century, the two brothers Polo, Venetian merchants, embarked on a trip that took them from southern Russia, transaction by transaction, to Bukhara, and thence via Karakorum to Peking. (Pl. 3b.) After returning to Venice, they set out again in 1271, taking with them the young Marco. They crossed Anatolia, Khurasan, the Pamir, the oases of the Tarim, and the Ongut countries ruled by the Christian prince George, to bring to the Great Khan, at his summer residence at Dolon-nor, a message from Pope Gregory X. Then they moved across to Peking, returning home only after an absence of a quarter of a century, by sea as far as the Persian Gulf, and then by land via Constantinople (1295). Over this period, Marco Polo was receiving commissions from the khan, emperor of China. He was probably employed by the Salt Tax authorities of the commercial centre at Yang-chou (Chiang-su). He was certainly among the many who profited by the good roads and the comfortable staging-posts. The Mongols had built them for strategic purposes, but saw all the advantages that could be derived from putting them at the disposal of travellers or merchants with their caravans, which often comprised a thousand drivers. Marco Polo describes what important trading centres the big towns then were: Peking, the centre for the northern silk manufacturers; Chang-tu, the dispatch post for the silk goods through central Asia; Yang-chou, the centre for rice; Hangchow (Quinsay) and its sugar stocks; and Ts'uan-chou (Zayton) where 'all the ships of India dock, so loaded with spices, precious stones, and pearls that it is unbelievable'. He adds that 'for every shipload of pepper sent from India to Alexandria, there are over a hundred to Zayton'. He notes the working of coal-mines in the north, the importance of the Yang-tse river as a commercial artery, and the major rôle of the imperial canal that Kublai had had extended as far as Peking, thanks to the talents of the greatest engineer of the age, Kuo Shouching (1231-1326). Internal trade was the concern of the Chinese corporations (*hang*) which

formerly grouped together craftsmen of the same skill. Marco Polo notes some fifteen of these in the town of Hangchow alone. The craftsmen toiled for the occupying power, which had a special directorate of craftsmen and artists. They lived in vast slave communities of defeated foreigners and convicts who had been spared because of their craftsmanship or technical skill. Gradually, management had passed to the leaders of *hangs*, who had to hand over the work product, almost without payment, to the authorities and levy on their behalf taxes which they themselves apportioned. The mounting fiscal pressure meant forced labour. Nevertheless, this system produced some remarkable *objets d'art* and luxury goods, in ceramics or enamel, wood or worked metal.

To meet their insatiable requirements, the nobles pressed for the multiplying of the issues of paper money, until in 1321 printings were forbidden in order to halt the drain of silver to the west. While the early days of the empire had made possible a prodigious extension of intercontinental trade, resulting in profitable exchange for the whole of Eurasia, the subsequent unrest in central Asia on the other hand, made communications within the continent more difficult. The sea routes linking the two sister-houses of Persia and China now underwent their greatest development, arousing in the Mongols a greater interest in the ports of the Asiatic south-east. This shift in commercial association was to become even more pronounced in the fifteenth century when the Ming dynasty was deprived of continental routes.

From being a matter of strategic concern, central Asia had under the Jenghizkhanids become for the Mongols themselves a source of commercial income which included the lands of northern China. The vast network of communications fostered the great currents of exchange between China and the west. Chinese engineers found themselves engaged to work on water projects in Mesopotamia. Chinese quarters sprang up at Tabriz, at Novgorod and in Moscow. Gunpowder, printing, paper money, playing cards and fine textiles, made progressive inroads into Europe. Chinese painting transformed the Persian miniature and had its influence on the art of Lorenzetti (1340). China in turn was indebted to the west for musical instruments, refineries, carrots, the pistachio nut and, above all, sorghum, which came to be grown alongside millet. As so often happened, trade relations led to a two-way exchange of men of religion. From the Taoist Ch'iu Ch'ang-ch'un, who was brought by Jenghiz Khan to the Oxus in 1222, to the Franciscan, John of Marignolli, who was received in audience by the last khan in 1342, how many missionaries trod the Mongol roads!

Confucianism and Christianity. Nestorian Christianity was one of the creeds most warmly received at the court of the Great Khan, who had created a special department (Ch'ung-fu-ssu) for the Christian cults. The Qaghan's preference, however, was for Buddhism, more particularly Lamaism, which incorporated the ritual practices of Tantrism. The great pontiff of Lamaism was the Tibetan, Phangs-pa. Taoism, which had interested Jenghiz Khan, and

which Mongke often used in oratorical contests to set against Buddhism, was less appreciated. Kublai, irritated by the paltry arguments of the Taoists, ordered the burning of all suspect works. Confucianism under Kitan and Jurchen rule had suffered a long eclipse in the north. With the Sinicization of the Mongols from the middle of the thirteenth century onwards, it returned to favour. Ogodai re-established the university centre of Kuo-tzu-chien, over which Kublai later set an adherent of the neo-Confucianism of Chu Hsi. The same khan had a temple to Confucius built in Peking (1306), and conferred on the Great Sage new posthumous titles. Examinations in the Confucianist traditions had been discontinued in 1237 in the north and at the time of the conquest in the south. High officials were recruited on the basis of their knowledge of Persian and Uyghur. From the accession of Kublai, an effort was made to Mongolize the administration by the creation, notably, of a Mongol script (1269). In 1315 the Khan Buyantu, completely Sinicized, re-established the Chinese examinations and required Mongols to pass them. The Confucianists thenceforth held the reins. Christianity was remarkable principally for the efforts of Catholic evangelism. The pope had been advised on several occasions of the existence of Nestorian communities. He knew that the princely house of the Christian Onguts was related to the khans. Moreover, in 1279, Kublai had opposed the Infidels and Islam and he also had in his guard 30,000 Alans, Christians from Caucasia. Emboldened by these facts of the situation, Pope Nicholas IV sent the Franciscan, John of Montecorvino, to the Mongols. John was well received at the court, and built two Catholic churches in Peking, baptized more than 10,000 people and converted a Nestorian prince, George, the son-in-law of the emperor of Peking, sending him three suffragan bishops and a bishop for Zayton (Ts'uan-chou). Notes left by another important personage, the Franciscan, Odoric of Pordenone, missionary to India and China over the years 1320-30, describe the emperor, blessed on each of his journeys by the archbishop, baring his head and kissing the cross. This success for the papacy did not survive the fall of the Mongols, for Christianity was deemed by Ming nationalist reaction to be a Mongol religion and therefore to be proscribed. It was not until the seventeenth century that the Jesuits renewed Catholic efforts there.

The Mongols were successful in everything so long as they made roads the keystone of their policy. From the moment separatist interests interfered with the functioning of the great highways, the nomad empire reverted to nothing; in part being absorbed by the civilized world, in part relapsing into the old traditions of the steppes.

3. THE AWAKENING AND EXPANSION OF CHRISTIAN WESTERN EUROPE

From about the end of the tenth century, western and central Europe enjoyed a freedom from the invasions that had hitherto dominated their history, a

precious immunity which Arabs and Byzantines, harassed by Turkish advance, might well envy. There now followed on all sides an inverse movement of expansion on the part of this Christian west, of both its men and its civilization. At the same time, signs of a deep internal revitalization became apparent. These signs were a rapid population increase, vast economic development, a major social reorganization, the crystallization of political theory, a refinement of religious perception and a flowering of intellectual, literary and artistic life. These phenomena were clearly very closely interconnected and it would be difficult to single out any one for causal priority. What stands out is the seemingly biological motive power behind the development—one of the completest and most decisive in history. For it is clear that what we see here are the origins of the upward course that Europe was to follow, though with many vicissitudes and slowings of pace, through to the nineteenth century, and which was to change the face of the world.

A starting date is as difficult to assign as a causal order. Fifty years or so ago, historians placed the beginnings in the twelfth century. More recently the tendency has been to go back earlier; there has been talk of a 'tenth-century renaissance', and the tracing of the origins even of this to Carolingian times. These uncertainties tell their own story; the development was clearly a gradual one, proceeding from first indications that were almost imperceptible. By the middle of the eleventh century, however, the signs are clear enough and form a sufficiently coherent pattern to be studied as a group formation.

A. The Awakening of Western Europe

The Growth of Population

Few historians question the reality of a rapid growth of population in western and central Europe, at least from the eleventh to the thirteenth centuries. It is a matter, however, for which direct statistical evidence is almost entirely lacking; a few figures only can be quoted. In England, the royal administration, very quickly organized, was able, in 1086, to draw up for William the Conqueror a survey of the country he had just subjected; the Domesday Book, from which the population of England can be assessed at about 1,100,000. A little before the Black Death, which struck in 1348, this figure may have risen to about 3,700,000. This was a particularly marked increase in a country which was very thinly populated. In France a monarchical administration which developed more slowly provided no document comparable with the Domesday Book until 1328. From this year dates the *Etat des paroisses et des feux* (i.e. survey of parishes and hearths) on the basis of which M. Lot has estimated the population figure for the area corresponding to modern France at between 16.5–17 million. No earlier figures are available for comparison. All that can be said is that the increase was in all probability less than in England. For Germany, Italy, or Spain, divided internally or with weak governments, there is not even as much precise information as that. The

same indirect signs of population increase are nevertheless apparent in these other countries as in England and France.

The growth of the towns. Most marked among the indirect signs is the growth of the towns, which was taking place in varying degrees everywhere. The old Roman cities split over their walls into suburbs, which themselves had to be walled in the twelfth and thirteenth centuries. New towns also arose; only a few in the regions which were heavily Romanized, more numerous, naturally, in more recently developed areas, such as maritime Flanders (Bruges, Ypres), or eastern Germany. At the end of the thirteenth century, the most populous of these towns can rarely have contained more than 40–50,000 inhabitants; others with some 20,000 were still large by the standards of the times. Such urban growth is not entirely to be accounted for in terms of overall population increase. The reason was functional as well as being due to a change in the population distribution balance of town and country, itself the result of technological and social factors, such as increased productivity, the flight of the serfs, etc.

Land clearance. Examination of what was happening in the rural areas, however, shows continual and widespread land clearance. The documentation leaves us in ignorance of much of it—the less spectacular advances, effected within the domain by individual peasant initiative—but we read of landlords, particularly ecclesiastical landlords, forming clearance teams and attracting peasants by installing them on ‘cottar holdings’ (the tenants of which were free men who paid only light dues) and even creating new centres of settlement enjoying special franchises.

Regions, hitherto almost entirely unexploited, were thus brought under control, and the face of Europe ‘humanised’. In France there was ‘the greatest expansion of the area under cultivation that had taken place on our soil since prehistoric times’ (M. Bloch); a great number of small towns were created or developed and vast forests disappeared almost without trace. In the Iberian peninsula, *franco* settlers were to repopulate the territory which was being won in the north up to the thirteenth century, in particular in the valley of the Ebro. The growth of the Low Countries is the story of land reclamation, a chapter of particular importance. The coastal plains of Flanders, Zeeland and Holland were protected from the sea by a system of dykes and drains and their settlers passed on to others the benefit of the experience so acquired. Germany, where the wooded hills of the centre and south were now gradually put to good use, was the scene, from the middle of the twelfth century especially, of remarkable resettlement to the east, from the mouth of the Elbe to the borders of Bohemia.

The greater and more even spread of population over the land made relations between the human groups easier and surer. In general, the land clearance meant a lightening of the burdens weighing on the peasantry, and an increase in the freedom in their lives. More immediately, it meant a major rise

in agricultural production, which was called for by the population increase, and may be taken as sure evidence of it.

An increase in population is indicated also by other, though possibly less weighty, signs. Among these may be mentioned the proliferating ecclesiastical structure, with its multiplication of parishes, the building of new parish chapels and the successive enlargements of existing churches, in the towns especially, all telling of ever-growing numbers of worshippers. This is an instance where demographic rise fosters the growth of artistic expression.

The causes of the population expansion. The reality of the phenomenon is clearly not in doubt, whatever uncertainties there may be as to its extent. Its regional distribution is something equally difficult to determine. France, for example, appears already as the exceptionally densely populated country it was to remain until the eighteenth century; England, despite rapid increase, and Germany, on the other hand, are much less densely populated.

The causes of this growth are no less problematic. There seems to be no appreciable fall in the mortality rate from the eleventh century. Why did men from that date want to bring more children into the world? Technical advance and a greater measure of security are at least as much consequences as they are causes of the event.

Whatever the causes may have been, however, we can assert with confidence that the source of the vast economic development which took place had its origins in the increase in population. Growth of trade with the eastern Mediterranean which occurred at a rate proportionate to the capacity of Europe to absorb and exchange, has often been seen as essential external stimulus, but it was, in fact, a minor factor in comparison with this population increase.

Economic Development

Division of labour. In order to feed, clothe and house this ever more numerous population, agricultural and industrial output had to be considerably increased. Manual labour, though itself more plentiful, did not alone meet the increased demand. Man learned to make use more effectively of the forces nature placed at his disposal: animal power, water power and wind power. He made tools and other accessories more precisely executed and of better quality. One of the effects of such technical advance was to set free for other activities a part of the labour force hitherto tied to the soil. It was the proportion thus set free that congregated in the towns. And the new division of labour itself gave rise to a wider exchange. The rural community found that it was no longer limited in its aim to supplying the needs of those working on the spot, but had additional outlets in the towns, though for the most part the division of labour as between town and country was not absolute.

Development in Italy. Certain places emerged, nevertheless, as particularly

well developed and distinguished centres of production and exchange. The rise of Venice indicated plainly, as early as the tenth century, the part that Italy, and especially northern Italy, could play as the intermediary between east and west Mediterranean. And whereas thanks to the intimate relations of Venice with the Byzantine Empire, Venetian fortunes continued to advance, those of Genoa and Pisa were launched, in conjunction with the Crusaders, in the second half of the eleventh century, on a similar upward path. Inland, at the road of junctions, arose great cities: Piacenza, Siena, and, above all, Florence and Milan. In the thirteenth century, Italian industry was manufacturing its own products and finding markets far afield; for example, Florentine cloth, Lucca silk and Milan weapons. Italian merchants made their way to France and England to exchange their goods. Their initiative, the powerful associations in which they grouped themselves, the superiority of their techniques, made them the masters of high commerce and, more than that, the creditors of princes and often their financial agents. From the thirteenth century, the ports of Catalonia—Barcelona in particular—began to offer the Italians significant competition, but without dislodging them from their position of pre-eminence.

The Low Countries. The other important region of economic activity in Europe was the Low Countries. In these territories, in part won from the sea and rapidly peopled, an industrial talent that showed itself as early as the eighth century in the vogue of 'Frisian cloth' was to enable a dense and active population to obtain its means of subsistence from beyond their own frontiers. Flanders was the first to develop its cloth manufacture, urban and rural, finding ready markets because of the fineness and colouring of their products. In the course of the thirteenth century, Brabant became a competitor in the luxury cloth market, Flanders responding by stepping up the production of a middle quality product. Almost the whole of Europe, including distant Russia, and the whole of the Mediterranean basin, was amongst the Low Countries' customers. Local sheep resources very soon ceased to meet the needs of the industry and wool was imported from England, where a particularly high quality was obtainable, and from Spain, where merino sheep-rearing was being extended. Comparisons have been made of this development of a great industrial region with the experience of England in more modern times.

The fairs of Champagne and Brie. Transport from northern Italy to the Low Countries was at first by land. The fairs at Champagne and Brie were already attended by the Flemish merchants and their Italian colleagues now joined them there to buy their cloth. Wholesale trade was conducted between professionals and was strictly organized during the six weeks that the fair lasted; the last week was reserved for payments, some of which might be carried over by agreement to the next fair. Merchants took advantage of the arrangements to settle debts contracted elsewhere, and these fairs became 'embryonic clearing-houses' (H. Pirenne) of the European economy.

After a century during which they were at their peak, these international fairs began to decline in the last third of the thirteenth century. The Italians were no longer finding it necessary to go to them to buy and pay for cloth, which they themselves were now producing in increasing quantities. Furthermore, the expansion and regularization of the main commercial 'currents' led the merchants to abandon their former mobility and conduct their business from their desks, setting up branches in the big trade centres, a development which in turn required and anticipated further advances in commercial techniques. The fairs became less important and Paris inherited part of the business hitherto transacted in Champagne. Bruges benefited even more from its threefold relationship with Italy (sea communications had become regular since about 1270), with England the wool-supplier, and with the North Sea and Baltic countries, and had, by the end of the thirteenth century, turned into a great commercial metropolis.

The advance slackens pace. Signs became apparent around 1300 of a seeming slowing down of the pace of economic advance. This was doubtless in part attributable to the insufficiency of the European coinage supply. Another factor, however, was the inefficiency of agricultural methods, as a result of which there was a growing discrepancy between the increased population and industries. European civilization in the thirteenth century was still rural, dominated by agricultural activities and threatened by any crop failure. It was a stage. To pass beyond this stage required nothing short of a prodigious expansion of the continent's world relations, reinforced by a scientific revolution. This brings us back to the basic themes of this study.

Social Reorganization

The 'orders'. At the beginning of the eleventh century in European society, each individual occupied a position made clear primarily by the relation in which he stood to others: to his superiors, on the one hand, and, if he had any, to his inferiors on the other. According to the nature of these relations and the obligations they entailed, he was a knight, voluntarily accepting the status of a vassal, or a peasant, either the free tenant of a rural domain or a serf, who belonged, from his mother's womb, to his lord and master. These categories of men formed what were known as 'orders', seen as a function of the tasks they performed, under the Divine Providence: the orders of those who prayed, of those who fought, and of those who laboured. The stability of this society is accounted for by the sterility of the economy.

With the development of the economy came profound modification of these human relationships and of this social organization. The part played by money became increasingly important. This was particularly obvious in the towns, the existence of which was based, not exclusively, but chiefly, on commercial exchange, and where labour was obtained by payment of wages or a stipulated sum for a particular job. But rural society was also becoming permeated by the

flow of currency resulting from the sale of agricultural produce to the town dwellers. Among the nobility, the growing importance of money did not precede, but more often followed, mounting demands; necessary for a life of greater comfort and style, money was also the wherewithal to meet the growing expenses entailed by advances in fortification and armament. Increasingly, in France and Italy especially (in England, this class directed their energies rather to growing more on their demesne, putting the produce on the market), the lords required payment of their tenant's dues to be in coin, and took this also in lieu of the discharge of the traditional labour obligations, and with it paid for the working of their diminished land holding by more highly skilled labour. They endeavoured also to augment their incomes by the levying of tallage.

Feudal relationships were also changing. Except in Germany, where this was not so marked a feature, money payments as between vassal and lord increased; they were made for aids (which the vassals set out to limit to a number of clearly specified cases), for reliefs paid by the heirs to fiefs and as taxes in lieu of military service which the customary limitation to forty days made less and less effective. The fighting men, whose services the feudal system was designed to ensure, had now to be hired for wages, a sufficient indication of the radical change that had taken place.

The growth of freedom. In addition to money, another new factor was making itself ever more strongly felt in the social structure, namely freedom. This was not the fundamental freedom, conceived of as an inalienable right of man, which the Church, albeit admittedly mainly in theoretical terms, had rarely failed to preach, but the 'freedoms' or franchises, conferred on individuals by grant of privilege, which were found largely in the towns. The townspeople, fully occupied with their own concerns, were intent on cutting down their obligations, particularly those of a military nature. They saw no reason why they should appear before any but town courts; often they asserted their personal freedom and extended the same privileges to all such incomers as their former masters allowed to remain unmolested for any length of time. 'Die Stadtluft macht frei' ran a German proverb. Certain towns obtained the right to govern themselves, by means of eschevins (*scabini*), aldermen, consuls and councillors. In the winning of such freedoms the great weapon of the townsfolk was their solidarity. The form in which this found its highest expression was the commune (particularly in northern France) which was the community of the citizens united under oath and, in most cases only after struggle, recognized by the seignorial authority. But everywhere the formation of professional associations, brotherhoods and communities of all kinds bore witness to the same new spirit of a joining of forces among equals.

Not a few villages, old or new, obtained the same franchises. Even within the manorial organization the feudal lord himself, anxious to retain or attract tenants, resigned himself to making concessions, by reducing or limiting

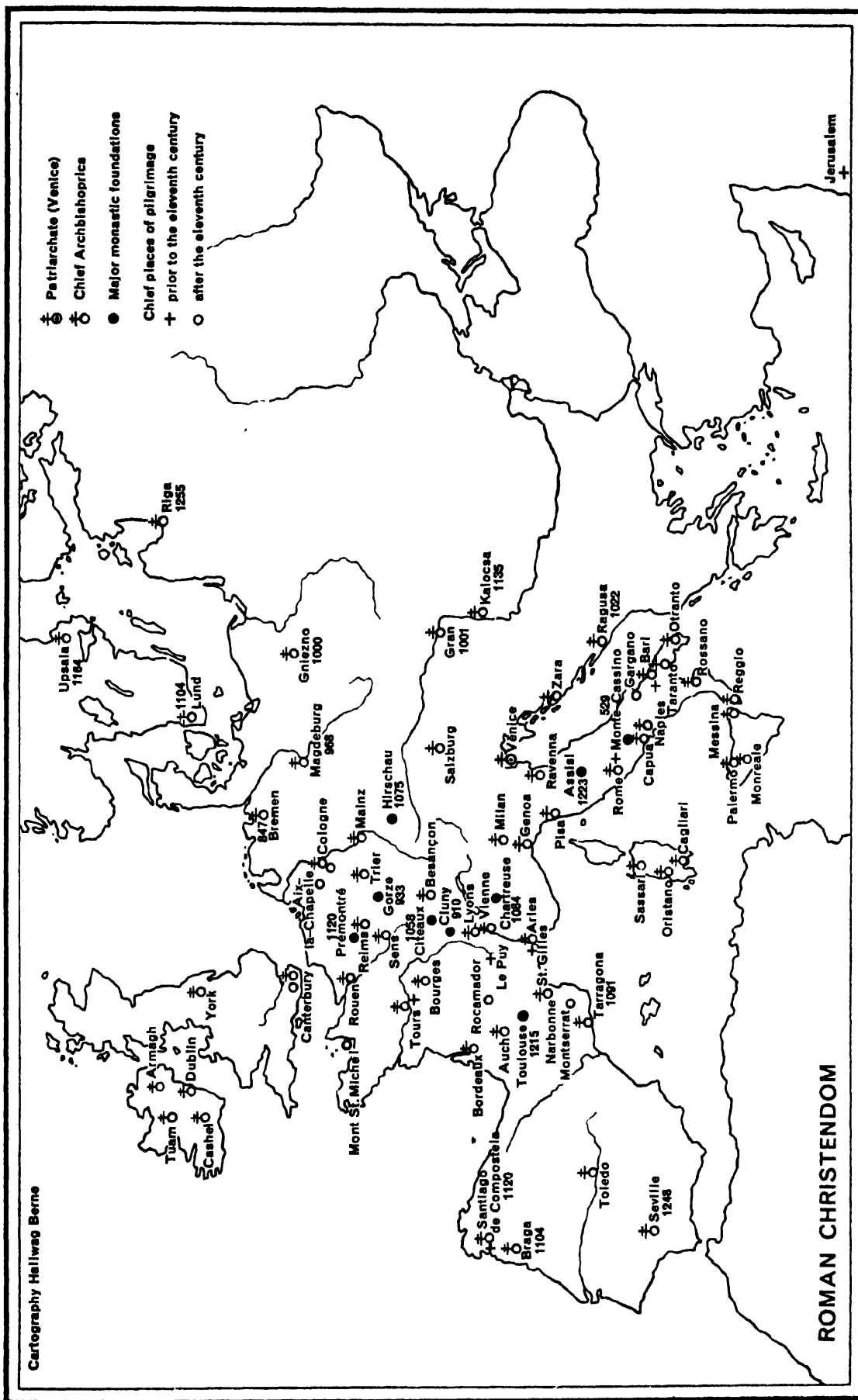
labour obligations, or by fixing the rate of tallage. The serfs alone failed to benefit from any of these franchises; for them, 'taxable and conscriptable' for labour at will, the progress of others in public life, from which they were excluded, served only to emphasize the degrading nature of their situation, to accentuate the 'mark of servitude' and to set their minds on the purchase of their freedom.

Thus the driving force of society was changing. The social strata were in practice—if not in theory—modified. The new class was the bourgeoisie, into which the workers of the countryside were not assimilated. More important still, however, was the appearance of differences of economic origin, within both this and the other social categories.

Differences within town society. Town society did not long remain the almost homogeneous agglomeration in which work and needs in common maintained solidarity, an indispensable condition in the face of external threats to their freedom. Sooner or later, there emerged in the different regions within it a patrician class, the members of which, adding to their urban property, acquired land outside and set out to climb into landed and aristocratic society, which, indeed, their way of life not infrequently enabled them to surpass. In the big industrial towns, this class was often in control of both raw materials and commercial outlets, and could impose its conditions on the workers. By co-option, its members also acquired control of the city magistratures. Its financial affluence called forth the protest of the poor and of the middle class. The conflicts that resulted led in the thirteenth century to intervention by arbiters—local tyrants in the towns of Italy, the crown in France, and so on.

Differences among the peasantry. Though less in evidence, a similar process of social fission was taking place among the peasantry. Better holdings, extended by clearance, possession of a horse or an oxen team, and the exercise of power in local or demesne administration were among the factors making for advance. There were instances of peasants, who had made a small fortune, leaving for the nearby town armed with a little capital, or, as happened in Germany, rising in administrative capacity in the service of a sovereign or some powerful lord and bringing their sons up as knights.

Rich and poor nobles. The ranks of the nobility similarly underwent transformation, with the enrichment of those lucky enough to enjoy a favourable position and able to take advantage of a big market or a fair, or of a town anxious to buy its franchise. Such enrichment was accompanied by the impoverishment of others, who, in order to maintain their station, had to run themselves into debt. Such people in particular found the insolence, which the newly risen bourgeois so often develops, almost impossible to stomach. As a direct reaction, the nobility, membership of which had been thought of hitherto primarily in terms of the possession of certain qualities of mind and spirit, completed its constitution into a knightly class. To be dubbed a knight a young



MAP XVIII

man had now to be the son of a knight, except in England, where the free-born cook in a wealthy household was not debarred, if he had the money, from this upper category. Gradually birth became the primary consideration and the son of a knight, even though he had not received the accolade (as when, for instance, his means did not permit it), remained of the nobility and was designated squire or *domicellus*. For such impoverished nobility the only recourse was entry into the service of a feudal lord or the sovereign, a social development which resulted in a redistribution of political power.

The Development of the Church

As an association of men, with great landed estates, the Church had to withstand its share of shocks from the effects of social and economic change. As the spiritual authority it also had to endeavour to understand and to direct the new currents of opinion.

From the middle of the eleventh century, a succession of popes, animated by reforming zeal, had denounced feudalization as the source of the ills suffered by the clergy and demanded freedom for the Church from the secular authority. These ideas set them directly at variance with the Empire, which laid the same claim to universality as the Church, and relied in its government on the existence of an ecclesiastical feudality.

Pope Nicholas II had taken advantage of the minority of the Emperor Henry IV to make papal election the prerogative of the cardinals and to promulgate essential decrees, forbidding a priest to accept a church from the hands of a layman or to conduct services if he was living with a concubine and compelling the faithful to abandon churches administered by priests guilty of either of these offences (1059–60). When Henry IV attained his majority, he came at once into violent conflict with Pope Gregory VII, a Cluniac passionately committed to reform and inflexible in his determination to obtain it. In the commotion raised by the reformist decrees, pope and king mutually deposed each other. Beaten in war, Henry was able to obtain pardon, reverse the situation, and set up an anti-pope in Rome. A refugee at Salerno, Gregory died defeated, but also a martyr (1185). Full implementation of these reformist decrees by the Empire would have meant its collapse. Nevertheless these were henceforth neither to be ignored nor rejected. Compromise was inescapable, and was effected by the Concordat of Worms (1122). The emperor guaranteed the freedom of ecclesiastical elections and renounced the right of investiture by ring and cross; the pope conceded that the emperor should be present at elections of bishops and abbots in his kingdom, that his should be the deciding voice in cases of inability to reach agreement and that he should invest the chosen candidate, by the sceptre, with the patrimony of his church.

So was a problem solved that had arisen nowhere else in so acute a form, whether because, as in France, the king had authority over only a small proportion of the clergy, or, as in England, because the papacy did not push matters to a conclusion. Everywhere, nevertheless, the conflict established the

principle of the 'liberty of the Church', and the independence of the spiritual authority is constant thereafter as an essential feature of western Christendom.

Moral progress. The struggle had other results. Researches into the local history of church development show everywhere the large-scale restitution of lands and rights usurped by the laity; the almost total disappearance of the marriage of priests and a sharp drop in the number living with concubines, this being now recognized as a serious misdemeanour; a decline in simony; and a gradual rise in the moral and intellectual standards of the clergy. The dignity of the secular clergy, regarded hitherto as of a status distinctly inferior to that of the monastic orders, was affirmed and stress is laid as much on its apostolic as on its liturgical rôle.

The supremacy of the pope. No less notable is the supremacy in church affairs henceforward enjoyed by the papacy, which had led in the fight for liberation. The principles, as set out by Gregory VII in the *Dictatus Papae*, are the divine origin of the Roman Church, inspired by the Holy Spirit; the absoluteness of its authority—dogmatic, constitutional and disciplinary—throughout the Universal Church; and the submission of temporal rulers, on pain of deposition, to all spiritual decisions it may see fit to take. From the eleventh century there was growing pontifical centralization. The papacy intervened in the life of all the churches and its curia acted as a court of first instance, and also of appeal, in a great number of lawsuits. It convened Ecumenical Councils, hitherto summoned only by the Roman (or Byzantine) emperors (1123, 1139, 1215).

This growth of pontifical power gave rise to reservations and opposition within the Church itself. It led to clashes with the states, which were themselves developing. The Concordat of Worms, though it settled the investiture dispute, left untouched the problem of relations between papacy and Empire. In their turn, the monarchs of England and France were also to come into conflict with Rome.

Over and above this, the Church had, from the twelfth century onwards, to confront new problems, arising out of social developments and the emergence of a world centred on a new type of economy and on profit-making. It was also a world stirring with collective manifestations of a new spirituality, a world more favourable doubtless to the development of heresies, which had been proliferating from the middle of the eleventh century.

The Church went into swift action against these perils. It fought against growing luxury in the lives of the clergy. It continued to make the moral judgments it had always made in regard to economic life, reasserting in particular its condemnation of the lending of money for interest, or usury. Certain of its bishops and abbots, more conscientious administrators than the secular lords, more vigorously opposed claims for urban franchises because they actually lived in the towns, although it would be wrong to conclude from one

or two spectacular episodes that there was here systematic hostility on the part of the Church.

Monastic life. Part of the Church's reaction to danger was, towards the end of the eleventh century, the creation of hermit orders like that of the Carthusians, and the Cistercian reform of the Benedictines. The foundation of Cîteaux, near Dijon (1098), was the expression of a new ideal, that was shortly afterwards to find its embodiment, in astonishing vigour, in the person of a young Burgundian nobleman who retired to this abbey and later became St Bernard of Clairvaux. The rule, as set by the order, included withdrawal to isolated and uncultivated places, far from towns; a reduction of the time given to liturgy and intellectual exercise in favour of individual prayer and manual labour; an asceticism stricter than that observed at Cluny; and absolute poverty, precluding the possession of seignorial rights and the adornment of churches. The success of the ideal was due to more than the personality of Bernard, mystic and man of action, alone; it answered the need of the time. By the middle of the twelfth century, the order had 350 monasteries, some as far afield as Portugal, Poland and Scandinavia.

The mendicant orders. The effects of the growth of the towns were seen also in a change in the balance, as it were, within the Church. In the thirteenth century, the Church finally developed the organs through which it might hope strongly to influence the urban masses, pre-eminent amongst them the mendicant orders. St Francis of Assisi, the son of a draper, after a youth of dissipation, threw up the whole of his patrimony to lead a semi-nomadic life of preaching work and begging, with only a few companions. Innocent III gave the group its first rule (1210), and it grew with great rapidity to become the Order of the Friars Minor. St Dominic, a canon of Osma and the offspring of a wealthy Castilian family, is associated with the struggle against the Albigensian heresy in the Toulouse region. From the nunnery for converted heretics, which he founded at Prouille (1206), and the group of preachers he assembled at Toulouse, sprang the Order of the Friars Preacher, whose rule was approved in 1215.

The Franciscans and the Dominicans and, after them the Carmelites and the Austin Friars, were mendicant orders; poverty was an essential part of their rule and they rejected all property, even such as the order might have possessed collectively. They were city-dwellers with monasteries in the towns, where it was easier to live and where they could bring their influence to bear on the masses. The Friars Preacher were, as a matter of principle, intellectuals, vowed to a method of preaching that required considerable mental development. The Friars Minor, on the other hand, became preachers only as the result of a development which followed a violent conflict within the order; but its very compulsiveness showed to what extent it was ministering to the need of the hour. Strongly centralized, the mendicant friars were a force at the service of the pope, who used them where the secular clergy seemed in-

sufficient, as, for instance, in the repression of heresy by the Tribunal of the Inquisition.

In this manner, the Church was able to remain in touch with the main trends of the century. The popularity of the mendicants, which tended to set these in serious competition with the activities of the parochial clergy, is a testimony to their effectiveness. The towns remained imbued with Christian piety. In the thirteenth century, however, the municipal authorities sought to reduce the ecclesiastic enclaves, contested the authority of Church courts and denied the clergy the right of influence in their schools. It becomes clear that the growth of the cities, as well as the growth of individual states, tended towards a measure of laicization.

The Rise of the States

Local and universal power. About the beginning of the eleventh century, the government of men was more or less shared between local authority and the universal powers. To the feudal lords, on the one hand, fell the humblest tasks of protection and rudimentary administration and jurisdiction. Papacy and Empire, on the other, presided over Christendom as a whole, maintaining within it a certain minimum of order and guiding it towards Salvation. Between these two authorities, the kingdoms, the more or less independent fiefs, occupied an uncertain position. Their titular heads were primarily feudal lords of rather greater power, distinguished, in the case of the kings, by a quasi-sacred insignia that raised them above the common run of men without conferring any very precise prerogatives.

Political regroupings. There now began to take place, a political regrouping, at the expense of both local and universal powers. The development of human contacts, between the villages, brought closer by land clearances, and the towns, which lived by trade, made the administration of larger units possible. At the same time, the kings and great lords had increased their incomes by means of tolls and rights over markets and fairs, and indirectly by tallage, and the economic growth placed at their disposal sums of money which, though as yet modest in size, enabled them to maintain mercenary armies and salaried administrations. For the latter, more widespread education furnished the personnel, which comprised first clerics and then, increasingly, members of the minor nobility and the bourgeoisie.

Sicily and England. The process of re-grouping took forms which varied considerably from country to country. The first states to emerge strongly consolidated were the kingdoms of Sicily and England, territories which were comparatively small and which had fallen by conquest into the hands of Norman dynasties. The special aptitude which the Normans had for government has been rightly recognized; the conquests gave them opportunities for its exercise.

Typical is the case of England, early endowed with a powerful and centralized monarchy, thanks to the work of William the Bastard, duke of Normandy, who, when he conquered it in 1066, retained and reaped the benefits of the traditions of the Anglo-Saxon royalty, while at the same time recruiting from among his own entourage a feudal nobility carefully designed to buttress the monarchy. Under Henry II (1154–89), the first sovereign of the house of Plantagenet, with its roots in Anjou, the administration was specialized and perfected. Thereafter, the history of the English monarchy is, first and foremost the history of the limitations it had imposed upon it. In 1215, Magna Carta extended to the relations of the king and his free subjects the feudal conception of common submission to custom, and reciprocal obligations. And the chief result of the War of the Barons (1258–67) was to regularize the functioning of the administration and to favour the association of knights and burgesses, representatives of the counties and the towns, with the functioning of the royal court. Henceforth, the strength of the English monarchy was to rest primarily in the support its subjects voluntarily accorded it.

The French monarchy. Development of the French monarchy followed quite different lines. Political consolidation and the organizing of administration took place first within a number of the larger fiefs and also, from the reign of Louis VI, surnamed the Fat (1098–1137), within the royal demesne. Extension of the royal power then took place by successive appropriation of these fiefs by the crown: Normandy, Anjou and Artois under Philip Augustus (1180–1223) and part of Languedoc following the Albigensian Crusade (1229). The royal administration developed at the same rate as the extension. The saintly Louis IX (1226–70) made it his business to improve it; he initiated legislation for the whole kingdom, and endeavoured to put an end to private seignorial wars within it. The force of his virtue conferred on his throne a prestige which was acknowledged everywhere, even abroad.

The Empire. The Empire, the titular head of which could still, even in the middle of the twelfth century, look with disdain upon these 'kinglets' was not under the same rising star. The very character of universality which it claimed, together with the attempts made, from the reign of Barbarossa onwards, to acquire the material resources of which it stood in need by extending the imperial dominion in Italy and Sicily, brought it into mortal conflict with the papacy, which, finding allies among the feudal nobility and in the towns, encouraged them in opposition to the imperial power. The last of the Hohenstaufen, Frederick II (1212–50), was a Sicilian, who multiplied concessions in Germany in order to obtain there the forces he needed to pursue his political aims in Italy. At his death, Germany became (and remained so up to the nineteenth century) an amorphous collection of innumerable principalities, owing allegiance to an imperial authority which was now illusory. The pope installed on the Sicilian throne the line of Anjou, which was related to the house of the kings of France.

The papacy might seem, with this victory, to have been at its height, but the truth was in fact otherwise. The monarchies had gained a footing, both materially and psychologically, and this represented so much erosion of the ecclesiastical power. When, around 1300, in the name of the principles forged in the struggle with the Empire from which it had emerged victorious, the papacy attacked the king of France, it was abjectly defeated.

B. Expansion and New Relations of Western Europe

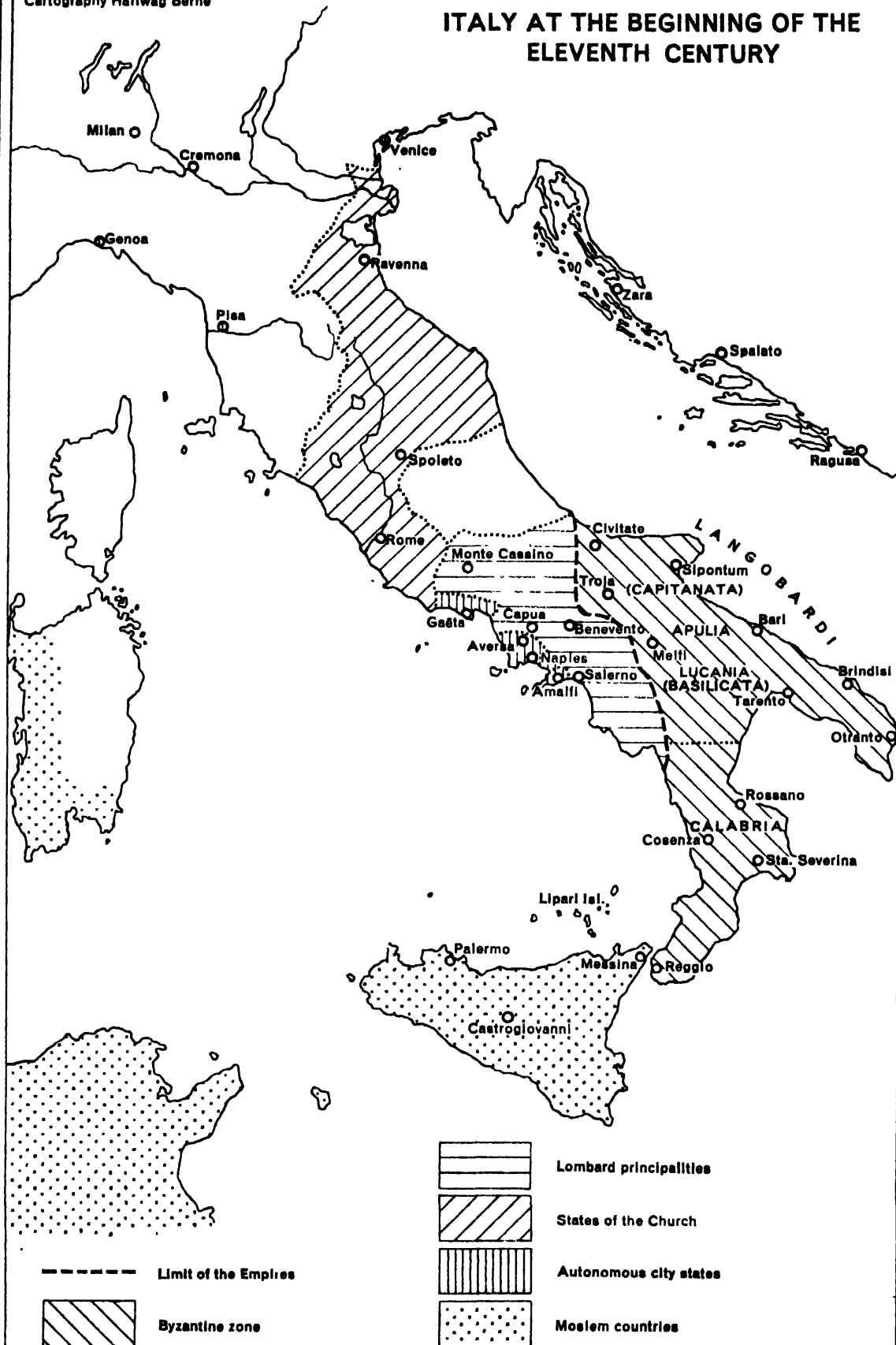
Expansion in the Mediterranean

At the beginning of the eleventh century, in respect neither of wealth, culture, nor even military strength could the Christian European states be considered to be on a par with their Byzantine and Moslem neighbours. Now, in two centuries, the seemingly impossible was to happen and the balance went down in their favour. It is the first Christian advances, made in obscurity by local powers, which are hard to explain. By the time the Moslems sensed the danger and reacted (c. 1100), it was too late.

Venice, Pisa, Genoa and the Normans. In Italy, the salient facts were the development of the maritime powers, Venice, Pisa and Genoa, and the installation in the south of bands of Norman adventurers, who were employed first (from about 1018) in the service of the Lombard princes, with whom they build up a dread reputation for cruelty. The papacy, however, after having vainly fought against them, was happy to find in them allies against the emperors of east and west. It recognized their leaders (1059) and directed their belligerent energies against Sicily. While Pisan and Genovese navies multiplied their raids, Roger Guiscard conquered Sicily in thirty years (1060–90). In the same period he gained control of the whole of southern Italy, driving out the Byzantines and threatening Greek dominion as far as the east coast of the Adriatic. At this critical juncture, the Venetian fleet acted as a buttress to Byzantium. But the mastery of the western Mediterranean had passed to the Christians, and the reconquest of Spain was so much the easier in consequence.

Castile and the Almoravids. In this action, Castile proved the most brilliant protagonist. In 1085, in return for an undertaking to help the rather weak Moslem king of Toledo to take Valencia, Alfonso VI received from him the old Visigoth capital and the central region of Spain, whence it was not long before he was threatening all the neighbouring kingdoms. The gravity of the danger induced the threatened Moslem princes to seek the assistance of the Almoravids, who had just established their empire in Morocco. In 1086, African armies, manoeuvring in masses to the sound of drums, inflicted on the Christian knights a shattering defeat at Sagrajas, near Badajoz. The Almoravids were, however, unable to follow up their victory. And the Christians did not give in. For over twenty years, Alfonso VI was aided by foreign knights;

ITALY AT THE BEGINNING OF THE ELEVENTH CENTURY



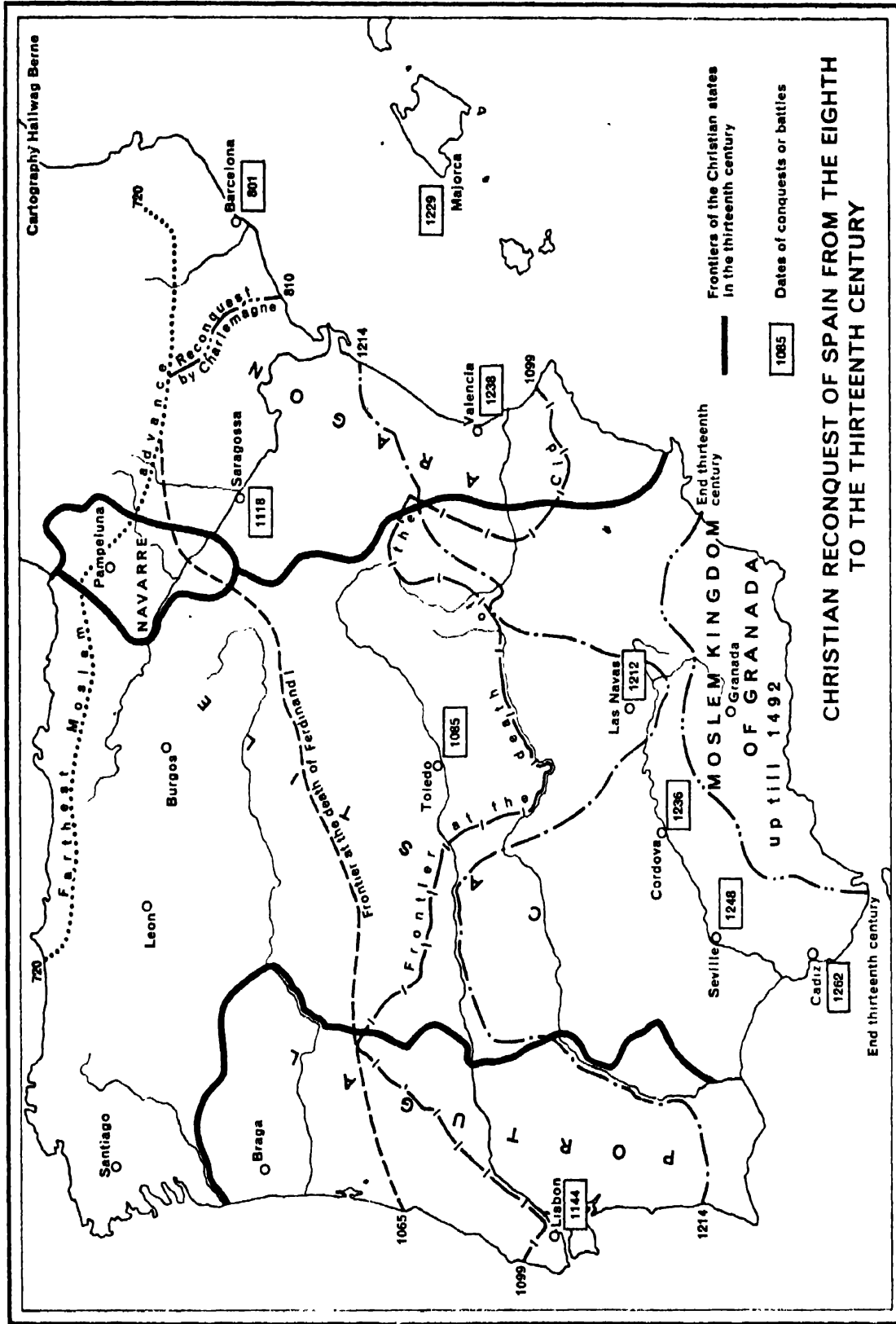
MAP XIX

the effectiveness of this assistance is still open to question. Anyhow, thus grew up in Spain the idea of the Crusade. Almost invariably defeated but never subjected, Alfonso VI held on to Toledo and the Tagus frontier. One man, who was formerly his vassal and had been banished by him, and had served for a time under the Moslem king of Saragossa, Rodrigo Diaz, 'the Cid', now on his own account conquered Valencia and held the Moslem assault at bay there until his death (1099). Finally, the Almoravids turned part of their strength against their own co-religionists in Spain, who had scandalized them by their laxity. When, in about 1110, they completed their subjection of the kingdom of Saragossa, the state of Aragon hitherto held within the Pyrenees had just reached on to the plain and the counts of Barcelona had brought about the partial unification of Catalonia. The taking of Saragossa (1118) by Alfonso the Warrior, king of Aragon, placed the greater part of the valley of the Ebro in Christian hands.

The Almohad. In the middle years of the twelfth century, the Almoravid intervention was followed by that of the Almohads. It too came up against stiff resistance in Moslem Spain. The Moslem-Christian conflict now took on a more desperate character. Increasingly, it resulted in attacks on the fortresses which each side erected on its side of the frontier; on the one side, were Moslem *ribats*, on the other, castles defended by knights of the military orders that the Spaniards created at this time. Almohad power was finally broken at the battle of Las Navas de Tolosa (1212) and thereafter Christian reconquest proceeded apace—Cordova falling in 1236, Valencia in 1238 and Seville in 1248. Moslem Spain was by then practically reduced to the kingdom of Granada, which subsisted for another 200 years.

The first Crusade. The movement of Christian expansion was also felt in the eastern Mediterranean. The idea of the Crusade to reconquer the Holy Places, a concept which was born in Spain, took definite shape. It can be defined as an expedition undertaken, under the direction of the Holy See, to do battle with the Infidels; participants in the Crusade were by statute granted indulgences and special protection for their persons, families and goods.

The Crusade for the Holy Places had its origins in a development of the pilgrimages that were so marked a feature of the eleventh century. Increasingly, the pilgrims made their way to Jerusalem in armed groups, though the Arabs, in their tolerance, put no obstacle in their way and the expansion of Turkish power probably did not change matters much in that respect. The idea of the reconquest of the Holy Places seems to have been born spontaneously in the minds of the pilgrims, who returned dazzled from their long journey. If there was a request made by the Byzantine emperor for western aid, it was in the simple form of mercenaries; but the precarious situation of the Empire in the face of the Turkish advance probably impressed the promoters of the Crusade. Among these a pre-eminent place was taken by Pope Urban II, who called for Crusaders in 1095, seeing here also an opportunity to divert the bellicose



MAP XX

energies of the feudal nobility. His call met with an extraordinarily enthusiastic response. The essential causes of the Crusade are probably to be found in the temperament and splendid vitality of western Europe at that time.

Converging from every quarter of Christendom, the Crusaders met before Constantinople, where the Emperor Alexius I hastened to be rid of them. The arduous crossing of the Anatolian steppes, the long hold-up of the siege of Antioch, failed to prevent the crusading army, seriously depleted though it was, from taking Jerusalem on 15 July, 1099—a Friday, the day of Christ's Passion.

Reaction from Islam. It was a victory made possible by the weakness of Islam, which was soon to show signs of recovery. Except in the north, the Crusaders managed to hold only the coastal region. Their organization on a feudal basis was not very stable but their most serious weakness was that most of them, their vows accomplished, went home, leaving behind a force which was a very small minority in relation to the indigenous population. Very timely, military orders, such as the Knights Templars, the Knights Hospitallers and the Teutonic Order, were formed for the protection of the pilgrims, and soon for the defence of the Holy Places. Moreover, the Crusade continued; each year saw new recruits coming out, to fight or to garrison the powerful forts which had been built along the length of the frontier and then to return whence they had come. At certain times, in times of greatest danger, these parties were much increased and great expeditions set out.

Later Crusades. Gradually, however, the character of the expeditions changed. The kings, who had taken no part in the first Crusade, now played an increasingly important one, which at times gave rise to clashes even with the pontifical authority. The transport of the Crusaders was now by ship from the Italian ports, whose business men effected the transfer of funds which these undertakings entailed. These expeditions slowed the decline of 'Frankish' dominance, without wholly counteracting it. Despite the heroic efforts of the kings of Jerusalem, the counter-offensive which Saladin launched from Egypt culminated in the fall of the city (1187), and the third Crusade set out vainly to recover it.

These were setbacks for which the results of the fourth Crusade can scarcely be considered to have compensated. Having learned the lesson of experience, Innocent III proposed that its destination should be Egypt, where Saladin's power might be struck at its heart, and he took care not to recruit the kings to his banner. A complex interaction of forces, however, in which Venetian interests played no small part, deflected the crusading army to Constantinople, whither it had been called by Alexis Angelus, pretender to the imperial throne. The capture of Constantinople by the Crusaders, which was followed by shameful pillage (1204), and the establishment of a Latin eastern empire were hailed as happy auguries for the success of future Crusades. In fact, the Latin emperor was unable to rally the Greek peoples of his dominion to a

sincere acceptance of his rule, or to eradicate the last strongholds of the Greek empire. From one of these, centred in Nicaea, Michael Palaeologus was eventually able to recapture Constantinople (1261). But these struggles absorbed forces whose strength could have been put to better use elsewhere.

Louis IX the Crusader. In the thirteenth century, the idea of the Crusade began to lose some of its force. A weapon too often brandished (and it had even been used in Europe as a threat to heretics or princes in conflict with the papacy), it gradually lost its edge. When Louis IX of France, even in defeat and captivity compelling the admiration of his gaolers, devoted several years almost immediately after his release to the reorganization of the defence of Syria, and finally died of plague in Tunis as a participant in another Crusade (1270), he appeared to his contemporaries to be an anachronism.

The subjugation of Frankish Syria by the Moslems, which had been postponed by the intervention of the Mongols, now went ahead. Its final achievement was marked by the taking of Acre in 1291. Cyprus, however, the seat of the kings of Jerusalem, and Rhodes, the base of the Knights Hospitallers, remained as rallying points for new Crusades, the dream and unease of which continued for two centuries to haunt western Christendom.

New Mediterranean Relations.

With the Christians' acquisition of new territory in the Mediterranean basin went a profound modification of trade relations; for European shipping had won control of the sea. The war brought to Europe the capital it had lacked hitherto, by way of tributes paid by Moslem states (as in Spain) and booty from successful raids or conquests. Most important of all, the balance of trade was better; articles made in Europe not only gave it a greater measure of self-sufficiency but also by their quality created new markets in the Byzantine and Moslem countries.

The Italian ports. In this expansion of trade, the leading rôle was played by the Italian ports. Venice had exacted payment for the assistance given to Byzantium against the Normans: by the Golden Bull of 1082, her commodities were made free in the entire Empire, and her merchants accorded a permanent establishment at Constantinople, a decisive advantage, which made the Venetians for a time the pre-eminent merchants of Romania. The fortunes of Pisa and Genoa were at first bound up primarily with the Crusades, centring on the transport of pilgrims and Crusaders and trade with Syria. Gradually however the influence of these newer ports extended to the Byzantine Empire, whose rulers welcomed alternatives to the over-strong Venetians and granted them special privileges. The three great ports thus brought into competition were stung to violent conflicts and the rivalry had some influence on the outcome of the Crusade. Venice played an important part in the taking of Constantinople (1204) and obtained as her share of the spoils a part of the Byzantine territories. Genoa then threw in her lot with the Greek emperors and, when

these returned to their capital, was able to re-establish her position in the Empire, particularly in the Black Sea area.

Barcelona. Beside the Italians, masters of veritable colonial empires and dominating Europe by the superiority of their commercial technique, sailors and merchants of other ports could only resign themselves to a secondary rôle. In the thirteenth century, however, Catalan commerce, particularly that of Barcelona, began to make a place for itself in the eastern Mediterranean. It had the backing of the enterprising monarch of Aragon, who established bases for it in the Balearics, which had been recaptured from the Moslems in 1229, and in Sicily, taken from the Angevins in 1282.

Developments in human relations. In the course of these three centuries, human relations had been undergoing a no less striking development. Contacts had multiplied between men representative of three great civilizations, all very different, yet all issuing from the same Mediterranean stock. Between the western Christians and the Moslems, these contacts were most numerous in Spain. They were characterized at first by a tolerance, in the making of which a major factor was the profound ignorance each side, apart from a few exceptional scholars, had of the other's religion. Nevertheless, in part as a result of the influence of outsiders like the Frankish Crusaders, the Almoravids, and the Almohads, the *Reconquista* turned into a war of religion.

The Crusader spirit, and the reaction it inevitably called forth from the Moslems, also exacerbated in Syria and Palestine the partners in a relationship previously imbued with tolerance. The Christian subjects of the Moslems, in particular, paid a heavy price, ceasing to occupy the major position which had hitherto been theirs in the cultural life of Islam.

Christian-Moslem animosity, nevertheless, did not reach such proportions as to prevent the infiltration of Greek thought into western Europe by way of the Arabic intermediary. In the course of the thirteenth century, awareness of the intellectual advance made possible by that intermediary, together with the failure of military expeditions led to the substitution in some degree of the idea of conversion for the idea of the Crusade. St Francis of Assisi went to preach in Egypt and the mendicant orders produced the first missionaries.

Church differences grow. Between Roman and Byzantine Christians, the gulf widened steadily. At the beginning of the eleventh century, the two branches of Christendom had taken to leading separate existences and it was difficult to say whether the division amounted to schism or not. But when the papacy, emerging from temporary eclipse, attempted an alliance with Byzantium against the Normans in Italy, the proportions which the gap had assumed over the years became apparent. The overweening arrogance of the patriarch, Michael Cerularius, combined with the scarcely comprehensible maladroitness on the part of the papal legates to produce a reciprocal excommunication (1054).

This was still not schism in the strict sense of the term and the relations between Christian east and west were in fact altered little as a result of it. Attempts at a reconciliation continued to be made.

The obstacles were very real, but were they insuperable? The highly ritualistic conception of religion then prevailing led the two parties to stress points of difference which would today be considered of minor importance, turning as they did on such things as leavened as against unleavened bread for Holy Communion and the observance of fasts. The Gregorian reform, with its stricter ban on the marriage of priests, sharpened the contrast with the Byzantine order of things, in which married priests had the Church's sanction, provided marriage had preceded their ordination as sub-deacons. The dispute over the *Filioque* in the Nicene Creed reveals a laying of emphasis on different, but by no means irreconcilable, aspects of the mystery of the Trinity. A more serious dispute arose over the attitudes of the two Churches to the temporal power, the importance which the pope laid on independence throughout the investiture conflict contrasting sharply with the ever-increasing control exercised by the imperial power over the Byzantine ecclesiastical hierarchy.

Towards a definite schism. The taking of Constantinople in 1204 and the attempt at union by force profoundly altered the picture. The rupture had hitherto been mainly among the leaders, scarcely affecting the masses. Henceforward, trying to enlist European aid against the Turks, the Greek emperor might hint at a possible reconciliation between the churches. These negotiations might even, as in 1274, look like succeeding; they foundered on the reefs of the implacable opposition from the clergies and the Greek people. The schism between Rome and the Orthodox Church is still operative today. Its origin should be dated, however, from 1204 rather than 1054.

Cultural enrichment. If, on the religious plane, the development of Mediterranean relations was mainly in the direction of the accentuation of differences, it is all the more striking that, in an age so essentially religious, it resulted also in a tremendous cultural enrichment for Europe.

In this field, the Crusades, contrary to the view long taken, played only a minor part. The men who were caused by the Crusades to travel were in the main soldiers and merchants, who responded more to the comfort and refinement of Arab life (the taste for which they brought home with them), rather than to the attractions of Moslem culture. Some contacts were, nevertheless, made by the intellectuals among them in Frankish Syria. The first of the great European translators, Adelard of Bath, lived there for seven years; he returned to his native city in 1126 to expound the knowledge he had acquired in the form of a dialogue with his nephew, called *Natural Questions*.

The rôle of Spain. Spain, however, was the great mediator between the Moslem and Christian worlds, particularly in the twelfth and thirteenth centuries. The factors which helped to raise her to this position were the high degree to which

culture had been carried in Cordova in the eleventh century; the fact that Spain then became the principal centre of Jewish intellectual activity; and the good relations which were maintained, wars notwithstanding, between the finest representatives of the Christian and Moslem cultures in the peninsula. From Spain, numbers of scholars migrated to other countries, especially Jews; for example, Pedro Alfonso, a Jew from Huesca, converted to Christianity in 1106, an astronomer and doctor who entered the service of the king of England, and Abraham ibn Ezra, of Tudela, who during the years 1140–67 visited the principal cities of Italy, France and England. In Spain itself, Toledo became, from 1124, under the French archbishop, Raymond, the seat of a remarkable college of translators. These came from very different quarters; after 1140 those frequently associated with it included, for instance, Hermann of Carinthia, a pupil of the school of Chartres, and the Englishman, Robert of Chester. Translation was sometimes carried out in two stages; thus at Toledo, Arabic works were first rendered by the converted Jew, John Avendeth, into Castilian and thence by Dominic Gondisalvi into Latin. The most prolific of all the translators, the Italian, Gerard of Cremona, died in Toledo in 1187, with some ninety translations to his name, although he was doubtless assisted by his pupils. Barcelona's part in this work must also not be underestimated; in that city, around 1134–45, another Italian, Plator of Tivoli, assisted by the Jew, Abraham bar Hiyya, devoted himself to the translation of works of astronomy and astrology, which had been neglected by the 'crass ignorance of the Latins'. This extraordinary activity diminished somewhat in the thirteenth century. It continued, however, in Toledo, to an appreciable degree. Michael Scott was one who worked there in 1217 before entering the service of the popes in Italy and then of Frederick II. Between 1252 and 1284, especially, Alfonso X, known as the Wise king of Castile, surrounded himself with scholars and translators, taking a part in their work himself.

Culture in Italy. In Italy, however, the two great Mediterranean civilizations finally did meet and become intermingled. The medical school at Salerno established its reputation in the second half of the eleventh century, through the translations of the Carthaginian merchant, Constantine the African, whose work was continued by his pupil, John the Saracen.

Sicily especially was a privileged scene of activity, under several cultivated Norman kings. The island's administration had to make use of the three languages, Greek, Arabic and Latin, to make itself understood by all the inhabitants. And Roger II (1130–54) gathered a number of Moslem scholars around him, among them the great geographer, Idrisi. Translations were made direct from Greek into Latin, as well as many from Arabic into Latin. The work was carried on by the German kings who became heirs to the throne of Sicily, and more particularly by Frederick II, who was himself the son of a Sicilian mother and assembled a circle of scholars and astrologers. He also founded a menagerie and was the author of a remarkable treatise on falconry.

His thirst for learning everything for himself, and his liberty of mind, gave rise to numerous stories which, even during his lifetime, represented him as a free-thinker.

Northern Italy also did its share in the work of translation. It was carried on there by Italians, like Moses of Bergamo and Burgundio the Pisan, who had learned Greek through spending some time in Constantinople as members of embassies or in the course of business. They were responsible for rendering important works directly from Greek into Latin.

Something must be said also of the art that flourished in these regions of mixed civilizations. In Spain and Syria the main feature is the invasion of French art, which began to combine with local elements. In Italy, the grip of Byzantine influence was stronger and painting in particular did not begin to free itself until the thirteenth century. But these are facts of interest only to the historian of these particular regions. It is in the intellectual sphere that these facts take on greater importance and something of a universal value. Through them Europe received the knowledge that was to become the basis of modern science.

The Integration of Scandinavian Europe

Religious integration. The conversion of the Scandinavian countries to Christianity in the eleventh century marked a reversal of trends, and the beginning of the penetration of European civilization into Scandinavia. After some initial difficulty, the assistance of kings who, like St Olaf of Norway (d. 1030), had in their travels become convinced of the superiority of Christianity, enabled the Church to extend its network of dioceses and parishes across these countries, under the authority of the metropolitan see of Bremen-Hamburg, to form an indigenous clergy and to provide it with a patrimony to establish the first monasteries, the first of all being that of St Michael of Schleswig, a Cluniac house established shortly after 1026. The era of missionary activity became the era of Scandinavian Christianity.

Economic integration. The incorporation of Scandinavia into Europe economically was a slower process. Up to the end of the eleventh century, these northern countries remained almost exclusively rural, with trade confined more or less to the import of a few luxury goods. Then a wholesale trade began to develop, involving the export of wood, fish and livestock, and the import of grain and manufactured goods. The annual fish market of Scania attracted merchants from every part of the Baltic coastline. The towns grew in size and increased in number.

Scandinavian society. Scandinavian society underwent a transformation. The clergy now became the essential element. Scandinavian priests went to study in Germany, England and France; Paris became, in the thirteenth century, the chief training centre for the members of an educated senior clergy, which

furnished the several countries with their personnel. At the same time, the Scandinavian nobility was changing its material way of life, learning to fight on horse-back and then to live in fortified castles. A middle class, in which German immigrants were prominent, was emerging in the Baltic towns; the same families are found from Bremen to Gotland and from Bergen to Danzig.

The Church set out to soften the way of life of this society which had so long been barbarian. Its aim was achieved soonest in Denmark, last in Norway. The stages of the civilizing process are impressive: at the beginning of the twelfth century came the prohibition of private piracy abroad; the middle of the century saw the abolition of divorce and an all-out campaign launched against concubinage; at the end of the century, the Church succeeded in having a ban placed on vendettas, and proclaimed a truce of God around the feast of St Olaf; at about the same time, slavery was almost completely abolished.

Scandinavian states. All this development tended to strengthen the position of national monarchies. They emerged as early as the eleventh century, with the help which the Church extended to the converted princes. Iceland, an aristocratic republic of individualistic Vikings, and isolated and backward parts of Sweden were the only exceptions. In the course of the twelfth century the advantage provided by written laws encouraged the growth of a permanent administration. In the hundred years from 1150 to 1250, there followed what was a veritable internal reconstruction. Royal functionaries were placed at the head of new administrative areas, which replaced the old Germanic 'hundreds'. Local customs, archaic and ethnic in character, gave way gradually to legislation emanating from the kings.

Scandinavian culture. Finally, the Church remoulded Scandinavian thought and art. It encouraged the writing of history, hitherto unknown. Latin practically ousted the vernacular in written usage in Denmark and to a large extent in Sweden and Norway. Iceland alone offered a partial resistance. After building some wooden churches, a few of which still survive in Norway, Scandinavia turned to stone and adopted the Romanesque style—in Norway in its Anglo-Norman form, in Scania and southern Sweden in the Lombardic form, in Jutland in the Rhineland form. From Europe, Scandinavia also adopted detached statuary, the fresco, illuminated manuscripts and ivory work. A century after the fall of the empire of Canute the Great, Scandinavia became artistically a province of Europe, in which the Gothic style of architecture was to find in the towns an environment particularly favourable to its expansion.

Germans, Slavs and Mongols

From the eleventh to the thirteenth centuries, what is now called eastern Europe was the theatre of a complex set of phenomena which are frequently difficult to evaluate. To begin with there was a Germanic drive, what the

Germans call the 'Drang nach Osten' which, in fact, also encompassed non-German elements such as the Dutch and the French. The Christian Slav states underwent terrible difficulties; in addition to the inevitable crisis inherent in growth, they were confronted with the German pressure to which they could not even offer a united front. Finally, in the thirteenth century, the Mongol invasion threatened to sweep over them completely.

German expansion in the tenth century. The second half of the tenth century constituted an initial phase in this long history. German expansion was then directed towards the Wend and Polabe countries lying between the Elbe and the Oder. Henry I of Saxony had already conquered the country once. His son, Otto I, was anxious simultaneously to convert and colonize it—a task to be conducted by the archbishop of Magdeburg, holder of a see established between 955 and 968. However, he came up against tenacious resistance by the Wends. The defeat of Otto II in Italy was reflected here; in 982–3, the Slav peoples swept outwards and Hamburg and Brandenburg, among others, were burnt down. The following decades were therefore marked by a decline in Christianity; the state of the Obodrites was established in the north and, in the south, the Liutices burnt the country's churches without the Emperor Henry II being able to resist.

Towards the middle of the eleventh century, however, the Obodrite prince, Godescalc, began to co-operate with Archbishop Adalbert of Bremen and authorized the missionaries to carry out their work which resulted in various conversions. The uprising of 1066 put an end to this; Godescalc was killed and Hamburg once again pillaged. The Obodrite prince, Kroutoi, was able to extend his territory to the mouth of the Elbe and, for thirty years, subjected the Germans to a positive reign of terror. It was the Polish king, Bolesław III, called Krzywousti, who, with the support of Rome, established a bishopric in Pomerania.

German expansion in the twelfth century. A second phase of German expansion began in the middle of the twelfth century. It was then conducted by the great feudal lords—Henry the Lion, duke of Saxony, and Albert the Bear, margrave of Brandenburg, not forgetting the margrave of Meissen-on-Saale. During the second Crusade (1147), these feudal lords succeeded in having the privileges of a crusade extended to their struggle against the Wends. The latter conducted a tenacious resistance which was often heroic in view of the inferiority of their social structures and their armies, but they were finally overcome. In 1171, Helmold, author of a *Slav Chronical*, was able to write that the whole country as far as the Oder had become 'an unbroken colony of the Saxons'.

The conquest frequently consisted of systematic massacres and German and Dutch colonists were called on to repopulate the devastated territories. New bishoprics were created, including Oldenburg and Mecklenburg, and the survivors were forced to become converts. A number of markets, which often continued the tradition of the old Slav markets were granted legal privileges

designed to encourage their activity; the law of Magdeburg was applied to a number of them. Intense commercial activity spread out from Lübeck which was founded in 1143.

The coastal drive in the thirteenth century. From the end of the twelfth century, the German drive took place along the coast, by-passing the Polish state to the north. Germans and Poles first came into conflict in Pomerania which had been converted from the Gniezno bishopric. Far away, on the Baltic coast, there were populations whose organizations remained primitive: Prussians, Estonians and Livonians. A rudimentary state existed amongst the Lithuanians.

In 1198, a Crusade was unleashed against Kurland and it was then that the military order of the Knights of the Sword, comparable to the Knights Templars and the Knights Hospitallers, came into being. After 1210, action was directed against the Estonians who put up a more effective resistance, backed by the Russian towns of Novgorod, Pskov and Polotsk. In order to overcome them, it became necessary to call on the Danish knights who behaved very much like the Germans and frequently quarrelled with them. Finally, in 1224, the Russians having been weakened by the defeats which they had suffered at the hands of Mongols, the conquest was completed.

It was at this point that the Teutonic Order, based on the Holy Land, first came into the action; it was later to merge with the Knights of the Sword. Summoned by the Polish duke of Mazovia, the Teutonic Order began the methodical conquest of Prussia in 1230. Finally, an initial penetration of Russia was attempted, but the Russian militia, headed by the young prince of Novgorod, Alexander Iaroslavitch, known as Nevsky, won a decisive victory over the Germans at Lake Tchoudskoié, known as the Massacre of the Frozen Lake (Ledovoié Poboichtché 1242). The German expansion was thereafter contained. In these remoter countries, it could not carry out the same extermination and systematic colonization as it had done west of the Oder. It was necessary to handle the local peasants carefully and they were merely compelled to pay tribute and fulfil various obligations.

On the whole, this drive to the east has been judged severely—and rightly so. All too often, the conversion of the heathen was only a pretext for violence and robbery. 'Let us enjoy Saxon Law, and we will become Christians', the Wagrian prince, Pribislav, vainly urged in the twelfth century. The many horrible acts of cruelty, however, should not be allowed to conceal the spirit of genuine piety which sometimes distinguished the missionary action nor the material success of the work of colonization.

Bohemia. Nevertheless, the German influence also invaded the Polish and Czech states. In principle, the kingdom of Bohemia seemed the most stable of the two. As early as 1197, the rule of primogeniture was proclaimed there; by eliminating the claims of collaterals, this exclusive right of the eldest son to the royal succession was designed to avoid the upheavals from which Poland

suffered. At a later stage, King Otakar II (1253-78) succeeded in extending his authority to the south, covering Austria, Styria, Carinthia and Carniola. Enriched by the production of the Kutna Hora silver mines, he played a striking part in the policy of the German princes and was able to lay claim to the imperial crown in 1273. It was the very excess of his power which led to his rival, Rudolph of Habsburg, being given preference and which led to his downfall in the face of a coalition of princes (1278). His descendants, Wenceslaus II (1278-1305) and Wenceslaus III (1305-6), succeeded in assuming the crowns of Poland and, later, of Hungary; but the absence of any direct heir then called into question the very existence of the Czech state which eventually (1310) fell to a prince of the House of Luxembourg. Additionally, the immigration of German colonists gradually led to the Germanization of the town.

Poland. From the beginning, Poland seemed even less well equipped to resist German pressure. In 1138, King Bolesław III, with a view to putting an end to the dynastic struggles, had left a will which divided the kingdom between his children. Thenceforward, Poland was to be a federation of duchies, with the dukes, all coming from the same family, recognizing that the eldest enjoyed a seniority in respect of somewhat vague powers. This theoretical link, however, did not prevent the various dukes from acting with growing independence.

The process of Germanization was thereby facilitated. As early as 1226, the duke of Mazovia incautiously called on the Teutonic Order to assist him against the pagan Prussians; the very success of the order was to confront Poland with a terrible threat. Apart from Prussia, it retained Danzig, while Wenceslaus II and Wenceslaus III of Bohemia, momentarily kings of Poland, ceded Pomerania to the margrave of Brandenburg in exchange for Meissen.

Finally, the thirteenth century was to see the penetration of German urban law with a large number of towns and villages adopting the law of Magdeburg or Lübeck (but with significant changes). The Polish national spirit none the less persisted, thanks particularly to the clergy.

Russians and Mongols. Russian history in the thirteenth century was dominated by the terrible Mongol offensive. As early as 1221-3, an initial raid organized by Jenghiz Khan from Persia led to the crushing of the Russian troops on the River Kalka and to the sacking of the Crimea. It was in 1237 that the decisive expedition was begun under the skilful general, Subotai. In one move, he crossed the Volga and shattered the Bulgarian state set up on its banks (end of 1237). Then he thrust towards the north, seizing Moscow (February 1238) and all of Muscovy. In 1240, it was the turn of the southern principalities: Kiev fell in December, causing deep emotion throughout all Christendom; shortly afterwards, the Mongols reached the Dnieter. In 1241, a double attack was launched on Poland (in the course of which Cracow fell) and on Hungary, which was sacked and remained occupied for nearly a year. In June 1241, the

Mongol troops concentrated near Vienna and it was then that the death of the Khagan Ogodai brought them to a stop.

This sudden change of the situation helped Europe, which, in circumstances of terror and confusion, was trying to organize a Crusade. All of a sudden, there was no longer any question of a Crusade and strange illusions began to spread. King Louis IX of France was able to dream of an alliance with the Mongols, so as to take the Turks in the rear and facilitate the freeing of the Holy Places. European missionaries and merchants profited from the peace which the conquerors had instituted and entered into Mongolian Asia.

Russia, however, remained under Mongol domination. It formed a khanate—the khanate of Kipchak—the chief of which was a descendant of Jenghiz Khan. Scattered Mongol garrisons discouraged any attempt at revolt, of which the Russian principalities, as weak as they were numerous, were in any case incapable. With each change of reign, the new prince went to Mongolia and did homage to the khagan. He then supervised the regular payment of the tribute which represented the main manifestation of subjection. The Mongol domination, in other words, did not transform the society, the economy or the mentality of the Russian subjects. It gradually grew less pronounced towards the west and the Germans and Poles even attempted to take over the most western principalities. As already noted, it was in 1242 that the prince of Novgorod, the great trade centre, succeeded in thrusting back the Germans.

It was only towards the middle of the fourteenth century that the Mongol empire split up and the Russian principalities recovered their independence. The dukes of Moscow then took advantage of this to establish their own power.

PART TWO

CULTURAL ACHIEVEMENTS

SECTION 1

TECHNOLOGICAL DEVELOPMENT: LANGUAGE AND LEARNING

CHAPTER V

EVOLUTION OF TECHNIQUES

I. THE FAR EAST

FROM the time of the Han dynasty, the Chinese had achieved a technological advance over their neighbours; they maintained this advance for more than a millennium. Thanks to efficacious irrigation and the invention of the wheelbarrow, water mill and bucket elevator, all fallow land had disappeared as from the fifth century. Roads laid out in accordance with specific standards, suspension bridges, mines, salt-marches and a complete system of weights and measures imparted to Chinese life the technical level of a great world power. This level went on rising steadily until the fourteenth century, but the organization of labour and the distribution of social burdens underwent changes, the effect of which was that the plight of the labour force became increasingly desperate.

A. Agriculture in the Chinese World

Slavery had almost disappeared, but the information at our disposal would indicate that it still affected 1 per cent of the working population. In the social hierarchy laid down by the T'ang texts, slaves occupied the lowest position, the highest being free men, followed by the descendants of convicts, servants, artisans and dependants or serfs. These categories, however, were not rigid, and a person's status could be raised by amnesty. Those who became slaves were still sometimes captives, such as the T'u-chueh referred to in the Orkhon inscriptions of 732, but more frequently they were children who were sold by ruined men, who sometimes even sold themselves. In the twelfth century, Chou Ch'u-fei also speaks of negroes being sold by the thousand in Canton; this slave trade was carried on in the South Seas and also perhaps in Africa concurrently with that practised by the Arabs. However, generally speaking, the Chinese authorities used negroes only for domestic work.

Civil wars and invasions had disrupted the ancient social order prevalent under the Three Kingdoms. Once the population had been disorganized and dispersed, it was not until 485 that the fluctuating labour force was once again stabilized, thanks to the law on equitable land distribution (*Kium tien*). But this did not put an end to the practice whereby free peasants and farmers became dependants or 'semi-serfs', for they continued to take service with the great families, parting with their share of the property in order to avoid taxation and their liability for *corvée*. As for the landed proprietors themselves, whether lay or religious, some were severe and others generous, but they all vied with each

other in expedients for exploiting the peasants to the maximum. Although there were a few temporary respites, the thirteenth-century peasant was usually badly treated on all sides, and 50 per cent of the product of his work was taken away from him in one form or another. The famines accentuated the intransigence of the officials and the venality of justice. This is why the peasants furnished hosts of malcontents who, while not easily exasperated, were always ready to revolt when injustice became flagrant.

In spite of their wretched social state, the peasants gave proof of undoubted patience and ingenuity. Even under the Han dynasty they already had a wide variety of tools—hoe, swing-plough and spades reinforced with iron; they also used animal traction which, though on a limited scale, made a considerable contribution to production. In addition they were acquainted with horizontal or vertical mills and bucket water-wheels. From the fifth to the fourteenth century they went on perfecting this equipment and extending its use: grain-crushing mills worked by water power were set up in rows; oxen and buffalo multiplied and were increasingly employed for field work; and harness was improved, with the felt-lined collar facilitating the pulling of harrows (*chao*) and rollers (*li-tseu*). And yet, all these improvements were not always to the advantage of the farmer. The concentration of the large mills in the hands of the powerful lay and religious authorities meant that those who used them had to pay heavy taxes. Moreover, as a result of the working of such machinery, the canals often became silted up, to the point where, as from the eighth century, edicts were issued in an attempt to limit their use to prescribed hours. The construction of the large oil-pressing mills (the oil was for both lighting and cooking) made it possible to impose further taxes which again increased the cost of living.

Despite a certain progress, the thirteenth-century texts still describe the peasant's existence as wretched: with only a plot of land 10 metres square, which he cultivates with the hoe, he slowly raises and lowers the long handle, while in the distance the drums beat out the inexorable rhythm of work in the rice fields. Only the feast days, when everyone spent all his savings, relieved the monotony of this life, bounded only by the ties uniting the owner with the worker, sometimes tempered with paternalist kindness and sometimes marked by patriarchal enforcement.

While the individual benefited little from progress, the agricultural economy made considerable strides during these few centuries, both in the north, where methods of dry farming were developed and in the south where rice cultivation was extended. Thanks to new processes of draining, the scales were progressively weighed down in favour of the south, where, under the T'ang dynasty, the cultivation of medium and late rice crops was added to that of early ones, thus considerably increasing production. Subsequently, under the Sung dynasty, the introduction of the Champa rices made it possible to introduce the alternation of rice crops which characterized the agriculture of the Ming dynasty in the fourteenth century, with its two or three harvests a

year. This intensive production transformed southern China into a granary of abundance and gave rise to a trading economy.

The result was specialization of the provinces and the development of complementary products: hence, increased production of salt. In the same way, cotton growing was extended and cultivation of this crop reached the central regions of the Ling-an, followed by Fukien in the eleventh century to attain the valley of the Yang-tse in the twelfth century, while an industry based on western cotton developed in Shensi. The expansion of the sugar cane dates from the same epoch: initially confined to Hunan and Hupei, it conquered the eastern regions, the Yang-tse delta, Sze-Chwan and Fukien, which was to remain a major centre for it, between the fifth and eighth centuries.

But of all the produce of the soil, it was tea, referred to at the end of the third century as being one of the foods which had to be used cautiously, which finally ensured the wealth of the government. Originating from the Annam districts, it was immediately appreciated by many persons of refinement; under the T'ang dynasty it became universally known, and under the Sung dynasty even the common people drank it, thereby giving themselves natural protection against epidemics caused by drinking unboiled water. The leaves, pressed into blocks, were made red hot and pulverized. To the resulting powder, diluted with hot water, could be added salt, garlic or orange peel. As from the eleventh century, tea was taken in the form of infusion instead of powder. The fashion of tea-drinking spread to neighbouring countries: Tibet and Uyghur, first, followed by Kitan and Djurtchet, which were the largest customers of the empire.

The agricultural progress of the Chinese spread to their Korean and Japanese neighbours. Japanese agriculture was already prospering in the twelfth century with rice, different sorts of millet, soya, flax and a lot of hemp, but very little corn. From the time of Heian, market-gardening extended everywhere, whereas tea, imported from China, had a great vogue, being drunk in powdered form, as also did the ceremony of tea-drinking (*cha no yu*), which still remains a custom today.

The proper functioning of the irrigation system, the maintenance of the dykes and canals and the major public works were ensured as a result of the enlightened help of the monks. Gradually, the increasing care required by the rotation of crops helped to develop the economic rôle of the small and medium-sized farms. As from the time of Kamakura, the yield of farms was doubled or trebled by rotating corn or soya, the stems of which served to fertilize the rice; from that time agriculture attained a satisfactory level.

B. Crafts and Techniques in China, Korea and Japan

By law, Chinese craftsmen occupied only second place after freemen, farmers and others. Like officials, they were close to the central government

and worked in the arsenals, imperial workshops (*chang fang*) or monopoly departments and iron and salt mines. As permanent or temporary officials, they were above the level of serfs, were exempt from *corvée*, could make appeals in justice and were paid in kind and in cash at all-in or piece-work rates. They owed about 300 days' work to the state, but were free to work for themselves the remainder of the time. Here again, a relaxation in the apportionment of tasks took place under the T'ang dynasty. At that time the corporation (*hang*) appeared; although subject to strict supervision, they enjoyed comparative autonomy, particularly in the towns.

The Japanese craftsmen had a different status. From the beginning, they were organized in clans and were ennobled. They could be engaged by the authorities or the temples, in which case they occupied a place known as the *za*; for example, mention is made in the eighth century of carpenters, blacksmiths roofers and painters of Buddhist images attached to the Todaiji. Some of them were authorized to sell for personal profit any production surplus to that required by the patron. At the end of the twelfth century, the *za* showed a tendency to claim monopolies; such was the case, for example in 1195, with the *za* of the makers of hand-woven mats. At the time of the Kamakura, this sort of petition became increasingly frequent, bearing witness to a certain emancipation of Japanese craftsmen.

By and large, spinning and weaving were the business of the housewife, but craftsmen took an interest in silk, as a consumer product, or even a cash product. The quality of silk improved owing to the rich variety of mulberry trees, which gave rise to varieties of graft. The improvement in quality and the wider choice of fabrics made it easier to conform with luxury requirements and social imperatives, since there were imperial ordinances which governed the wearing of clothes, the shape, colour, design and ornaments of which were assigned to each according to his position in the social hierarchy.

The tradition of gauzes, crepes, taffetas, damasks and polychrome twills continued, but contacts with Iran brought innovations. T'ang patterns woven on the weft instead of the warp, often reproduced Sassanid motifs: pearl-encrusted medallions, hunting scenes and fights with animals. Under the Sung dynasty, there appeared the first brocaded silks woven with gold thread (*kin*) and woven tapestry (*k'o-ssu*). The Uyghurs imported this latter technique; they themselves probably had it from the Mediterranean world through the intermediary of Iran. Under the Yuan dynasty, the gold brocades with floral decoration and the silk carpets made by a special imperial workshop became widespread.

The Chinese adapted to statuary the ancient technique of dry lacquers. A clay model was coated with three to fifteen layers of hemp stuck to one another by intermediate layers of lacquer. On this crust details were modelled by means of a paste made from a lacquer base. Once the lacquer was dry, the clay model was withdrawn, leaving only the shell of hemp and lacquer. The light weight of the statue facilitated its transport on the occasion of processions.

This technique was to be very widespread in Japan at the great Nara Buddhist epoch (eighth and ninth centuries) only to suddenly disappear afterwards. The few rare examples of T'ang and Sung lacquers illustrate the techniques of incrustation or plating with mother of pearl, gold or silver. The motif, already cut out, was sunk into the coats of lacquer and then brought to the surface again by polishing. The work was perfectly finished, and the various objects, musical instruments, mirrors and needle-cases were given a rich basic texture and a fine iridescence. It may be assumed that all these processes were known under the Yuan dynasty; they imparted to the manufactories a prosperity to which exports to Indonesia, India and even as far as Mecca bear witness. From that time the lacquer technique was known and appreciated throughout the Asiatic world. It also crossed to Japan, where it found a choice field of application thanks to the skill of the craftsmen who derived an original art from it: thus, the artists of the twelfth century made sculptures on wood, covered with various coats of lacquer veined in red and black (*kamakura bori*).

The potters of the Six Dynasties and the T'angs continued, as in the past, to turn their vases of terracotta or earthenware and to model statuettes which they copied by means of castings. These figurines, which were exclusively for funereal purposes until the Sung dynasty, then became toys or objects for interior decoration. Considerable technical transformations also occurred: the replacement of charcoal by wood for heating changed the arrangement of furnaces. Several long, narrow chambers driven into the ground and arranged that they were on an inclined plane, made for better ventilation and consequently higher temperature and more rapid firing. The pots to be fired were placed in caskets made of refractory earthenware, which were ventilated in accordance with the required degree of oxydation or reduction, the former resulting in bluish or parrot-green tints, and the latter in warmer colours ranging from ivory to red, and turning to yellowish, brownish or greenish for copper. (Pl. 4a.) By the end of the Sung dynasty the first blues and whites and the first enamels had been achieved, while new shapes derived from archaic bronzes, which had been recently discovered, and new decorations such as fluting, ribs and grooves came into being.

That great Chinese innovation—white porcelain with felspathic coating (*hing-yao*)—was discovered under the T'ang dynasty. Porcelain is a variety of earthenware, vitrified to the point of becoming translucent. It is produced from a clay which turns white at a temperature of about 1350°C. This clay, *kaolin*, which the Taoist alchemists were already using as a drug, is mixed with the powder obtained from crushing a white stone which is also from a felspar base, known as *petuntse*. When blended with *petuntse*, the particles of *kaolin* are coated with it, and the material becomes hard and brilliant. The brilliant surface is obtained from a mixture of *petuntse* and a flux composed of bracken ashes and lime. As from the ninth century, Chinese porcelain assumed considerable commercial importance and became, particularly in the twelfth and thirteenth centuries, the principal export of China; it flooded the markets of

Constantinople and the Near East, though it reached Europe only in the fifteenth century.

Charcoal, which was already well known in the fourth century, was recognized as the ideal fuel in the thirteenth century, as was recorded by Marco Polo, since it made possible the maintenance of a continuous fire. It was essential in metallurgy for the refining of iron. As far back as the sixth century co-fusion—or, as J. Needham aptly describes it, 'co-lavation'—was already being practised. A treatise dated 550 speaks of the craftsman mixing the two sorts of iron and heating them together continuously for days. The metal underwent a transfer of carbon and it was sufficient to submit it to repeated forging in order to obtain steel. This process was particularly widespread under the Sung dynasty. Another process made it possible to amalgamate mild and cast steel in order to make sabre blades of exceptional quality. In this field, incidentally, the Japanese soon acquired skill superior to that of the Chinese. The high level of iron and steel-making of the epoch is demonstrated not only by the fact that iron tools and utensils were generally used but also by the care which Ogdei took, before attacking Europe, to provide himself with arms of Chinese manufacture.

The Chinese also knew how to separate and alloy zinc; coins of the period 1094–8 contain 55 per cent copper, 26 per cent lead and 13 per cent zinc. Alloyed with copper and nickel, zinc formed another hard alloy—nickel silver, with its silvery look, so much valued for household objects, such as plate and candlesticks.

One day, in the crucible of a Taoist alchemist, a mixture exploded; gunpowder had been discovered which, together with fireworks, have delighted the Chinese ever since the eighth century. In the twelfth century, when hard pressed by the Kin Tatars, the Chinese used them as explosives and invented the grenade. In 1232, the Chinese and Kitans, besieged near Kaifong, terrified the Mongols by a 'thundering machine'; this was probably a cannon, perhaps even made of iron. Although the exact date of the appearance of the first cannon is doubtful, the use of gunpowder was mentioned in a military treatise dated 1044 (*wou king tsong yao*); it was used in combination with scientific catapults, poisoned smokes and flame-throwers.

The same military treatise describes an infinite variety of lances and blades, maces and halbards, chevaux de frise, hooks and harpoons for attaching to the sides of war chariots, helmets, breastplates and caparisons with leather or iron plates. It is worth noting that, while gunpowder began as a toy and became a weapon, one military machine later became a toy. This was the kite, mention of which is made in connection with a siege in 549. In order to send a message to their allies, the defenders made a framework of bamboo, covered it with paper and sent it up into the wind attached to a string. However, skilful archers on the other side pierced it with their arrows and brought it down. It would appear that this device became highly perfected in the twelfth century. Apart from the various aspects conferred upon it by the organizers of feast

days, it may have had certain propitiatory aspects; Marco Polo tells how sailors, who wanted to bring themselves luck on reaching the high seas, launched a kite to which they had attached a man, thus foreshadowing the first aircraft.

The invention of printing came anonymously from among the manuscript copiers. Since the sixth century, both Buddhists and Taoists had used xylographic plates like seals for copying charms (*dharaṇi*). It is known that, in 770, the emperor of Japan had a million of them printed by means of copper plates. Shortly afterwards there appeared ordination certificates printed in several thousands of copies. The oldest printed text known is a Buddhist one dating from 868, and the earliest mention of collections of printing is that of the *Nine Classics* in 130 volumes published in 932–53 by Feng Tao. Printing by block was replaced during the period 1041–9 by movable characters. Pi Cheng, who invented them, made them from clay, which he placed on an iron plate coated with a wax glue and tightened with a metallic frame. Once he had used the die, all he needed to do was to heat the characters in order to recover the clay and compose the next set of texts. The Koreans improved on this system by using metal characters (1403). But since the number of Chinese characters involved delicate manipulation, the printers preferred to confine themselves to xylographic printing.

Book technique changed simultaneously, and the original manuscript rolls (*kiuan*) were succeeded by works made up of sheets folded and stitched (*pen*). The quality of paper went on improving up to the eighth century. This was light yellow in the fifth century, golden yellow in the sixth and seventh and blue in the eighth; it was thin and translucent, with a hard, brilliant surface. But the terrible destruction at the end of the reign of Hsuan-tsung marked a period of stagnation. As from the end of the eighth century, paper became thicker, with a neutral colour and an irregular surface. Under the Sung dynasty, on the other hand, the quality and renewed variety of paper contributed to the spread of the book.

So far as porcelain, gunpowder, the compass and printing were concerned, Chinese craftsmen of the Middle Ages were in the van of progress. They also had machines and mechanical plants in advance of the rest of the world. One very significant example was that of the mechanical clock, known in China since the seventh century and studied by J. Needham on the basis of the detailed description by Son Soung in a work which appeared in 1090. The gear mechanism incorporated an elaborate system of hour-jacks, an anti-runback system, chain drives and a balance-wheel escapement. The latter device, compared with those of the west, was closer to the anchor escapement of the seventeenth century than to the weights system (*verge* and *foliot*) of the fourteenth century.

The inventions of Chinese craftsmen, therefore, were numerous and varied. Mention should also be made of the art of the gold and silversmiths—the fine silverwork of Sassanid inspiration and the sumptuous gold engravings; the art of the jade carvers with their finely worked belt buckles; that of the ivory

carvers with their cunning plating with red and green dyed materials; and the skill of the cabinet-makers carving the legs of chairs (a type of furniture introduced from the west in the sixth and seventh centuries) or sculpting the palankeens which had been frequenting the roads since the fourth century.

C. Transport and Trade throughout the Far East

The specialization of production, upon which a trading economy is based, necessitated the development of means of transport. The figure of the Chinese transporting two heavy loads and bowed down under the bamboo pole which cuts his shoulder or pushing a heaped-up wheelbarrow is well known to all. (Pl. 4b.) These methods of transport, together with the use of asses, mules, horses and camels as pack-animals, were adequate to the requirements of the local economy in the Middle Ages and have never disappeared. Convoys stretched out along the long desert tracks and, in the vicinity of the towns, along paved avenues. Then could be seen carts as well as more elegant vehicles with wheels made of radiating spokes, ensuring strength and comfort, which did not appear in the west until the fifteenth century; lastly, there were the shafted chairs carried by chairmen on their shoulders, in which the wealthy travelled. The roads were completed by bridges, usually of wood, and sometimes suspended from iron chains (sixth century). They were also sometimes built of stone in the form of either a flat or hump-backed arch. In the sixth and seventh centuries Li Kong built a bridge with a large arch spanning 40 metres. Four small, hollow arches resting on the extremities of the large arch took the strain from the ends of the roadway and provided reinforcement against flooding. This bridge, which still exists today, has dropped only 5 centimetres.

The use of the canals dates as far back as that of the roads but was much more limited. The first major canal which, linking the rich delta of the Yang-tse with the plains of the Yellow River, finally joined the two Chinas together, was due to the Emperor Yang-Ti of the Sui dynasty, who wanted a supply route for his troops, who were about to invade Korea. The development of the network of waterways was accompanied by numerous improvements; canals were widened so that boats could pass one another; changes of level were ensured by means of inclined planes made of wood coated with wet clay. The boat, hauled by a capstan, slid along this slope until it reached the other level, where it was pushed into the water. This cumbersome process was soon replaced by locks and, as from the end of the eleventh century, Hangchow was equipped with large locks, which also isolated its reservoir of drinking water from the flow of the tides. The river network was protected by powerful dykes which were consolidated and repaired by new methods, including the sinking of boats loaded with stones or faggots (*sao*). The engineer Li Yi dredged canals by means of a wooden machine fitted with metal teeth, which was dragged along

the bottom—a method not used in Europe until the beginning of the eighteenth century.

Along these canals were propelled by sail, oars or poles, or were pulled by haulers straining at the rope, heavy vessels, such as large rectangular, flat-bottomed barges carried rice, charcoal, wood, bricks and tiles. Boat-building was already well advanced under the Sui dynasty, whose Yellow Dragons (*huang-long*) carrying one hundred people and Five Decks (*wou*) which could carry eight times as many were a matter for boasting. In the seventh century wheeled boats were also built. Under the T'ang dynasty there appeared the stern rudder, which was to revolutionize navigation techniques throughout the world. At sea, Chinese vessels compelled admiration from Arab travellers. Under the T'ang and Sung dynasties, they attained more than 60 metres in length. Bottoms were flat and keels thin; these ships, with anything from three to a dozen masts rigged with square sails, could carry up to a thousand persons and counted on galleys of eight to twelve oars, sturdily worked by dozens of sailors. They were equipped with anchors and boats and were armed against pirates. The passengers, checked in on a manifest, were housed in 50 to 60 cabins. These heavy vessels, protected against disaster by holds with water-tight bulkheads, feared neither wind nor wave. They seized the mastery of the seas from the Arabs and, as the instruments of maritime trade, made a considerable contribution to the prosperity of the Sung dynasty.

The quality of Sung dynasty navigation also undoubtedly lay in the use of the marine compass. The properties of magnetism and deviations had been known to the Chinese for a long time; Chen kous (1030–94) points out that the geometricians used a magnetized needle suspended from a thread and floating on water. A work dated 1125, speaks of its use for navigation, but it is not impossible that the decisive improvements to it were made by the Arabs. Europe became aware of it in 1190, but it was only in the fifteenth century that magnetic deviation was understood.

For major constructional work, such as defensive walls, dykes and canals, the empire called upon its 'Public Works Department'. The labour force, which was colossal, might well exceed one million for a single undertaking. The work was not only hard; it was also dangerous. For example, it is estimated that transports of wood in the south involved the death of 50 per cent of the workers. Those making up the labour force were those liable for *corvée* (*k'o-k'u*); while under the T'ang dynasty only the personnel of private individuals, slaves, old people, women and officials were exempt. The legislator's intentions were praiseworthy, but there is no doubt that these laws, like others, were not always applied literally. Once again, the burden of the major works rested on the peasant, the soldier and the convict.

Agriculture and the crafts, which were subject to strict control by the state, were governed by the administrative centre of the town, which was also the seat of trading activity. Under the Han dynasty, the towns were above all the walled residence of the peasants, whose entries and exits were checked not

only to ensure that the work was done but also in the interests of military security. Under the Six Dynasties a gradual change took place. The old system of quarters (*li*) was re-established, but the farmers gradually stopped living in the towns. Under pressure of disturbances, devastations and taxation, the peasants scattered and grouped themselves into villages far from the official authorities but close to the residence of their local chief. Thus, the panorama of towns as centres of cultivated areas was replaced by that of centres which were administrative, industrial and commercial, but which were no longer the only inhabited places.

Under the T'ang dynasty, trade took place on the markets in which all dealing was concentrated. Each built-up area of more than 15,000 inhabitants was authorized to hold a regular market. Iron, salt and tea were subject to monopolies; transport and the warehousing of grain and textiles were under government control; and all transactions and contracts were subject to taxes, the product of which constituted the major part of the revenue of the state. The markets of the seventh century consisted of guilds (*hang*), each of which grouped the stalls of merchants selling the same type of goods. Soon, however, the geographical and economic dimensions of the country compelled the state to allow private enterprise to start up again on its own account. Thus, in the eighth century, independent merchants of the quarter grouped themselves into corporations (*hang*), which the government always favoured because they facilitated checks on trade. Regional markets were also tolerated. The peasants, who were far from the towns, preferred to organize markets on the major crossroads. These soon became permanent and, under the Sung dynasty, constituted trading centres (*chen*). Lastly, the markets at the gates of the cities, or occasional markets (*ts'ao-che*), became sedentary, invaded the cities and changed them so much that, in the thirteenth century, the large modern city was first and foremost a gigantic market. Fairs, on the other hand, were not favoured, for they were too difficult to control. However, at the frontiers of the barbarian countries, there were occasional mutual markets. In addition to these markets, the state, which coveted them, granted monopolies and privileges to the leading merchants and corporations in return for a levy of about 3·3 per cent on the taxes, which the tradesmen were responsible for collecting themselves.

Foreign trade was carried on with the assistance of the commissariat's trading vessels, the superintendent of which fulfilled the functions of inspector of police, godown manager and customs inspector. He levied a tax of 10 to 40 per cent on all goods and could effect purchases with public funds at the disposal of the commissariat.

Trade and payments were based on a cash and kind currency. From the fall of the Han dynasty to the seventh century, small-scale operations were settled in bronze coin. As gold ingots were no longer available, major operations were settled for with lengths of silk of a given size, measures of grain and hempen clothing. As from the T'ang dynasty, bronze coin, while remaining in circula-

tion for small-scale operations, underwent certain vicissitudes, since there were numerous changes of value and reductions in the number of coins per ligature. In accordance with these devaluations, the ligature consisted of 920 coins in 821; by 906, the number had been reduced to 850, by 927 to 800 and by 948 to 770. At the same time it was possible to reduce the copper content of the bronze coins; whereas in 752, the coin consisted of 83 per cent copper, 15 per cent lead and 2 per cent tin, by 1019 there was only 64 per cent copper. In addition to these fluctuations in number and minting, there were certain restrictions of circulation. The Sseu-ch'uan district had had an iron currency since the Han dynasty; as in the case of other frontier regions of the north and north-west, it had this in order to create a buffer zone to prevent the export of copper.

The mint, which had been a state monopoly since the Han dynasty, remained so, despite certain privileges granted to high officials and dignitaries under the T'ang dynasty. Counterfeiting was a capital crime, and the use of copper both for household articles and religious statues was controlled by regulations. Gold and silver, which were used for large payments, were restored under the T'angs; silver was more generally used than gold, but remained tied to it at rates of exchange which fluctuated between 6.3 and 13.3 during the period from the tenth to the thirteenth centuries. Under Sung dynasty, the manipulation of silver ingots became general and even the ordinary people used them. This extension was possible thanks to the increasing production of silver, in addition to which there was the imported silver which foreigners had to deposit in exchange for the bank notes issued under the Sung dynasty. The immense reserves thus constituted helped the Ming government to re-establish the silver currency when bank notes were abandoned.

The 'floating money' (*fei-tsien*) of the T'ang dynasty is often considered to be a first attempt at a paper currency. In fact, this floating money was merely a bill for the withdrawal of funds and therefore an instrument of credit. Those concerned paid money to the capital and were reimbursed from local funds at the prefectures. However, the system was forbidden to private persons in 811 and made a state monopoly. Originally each operation cost 10 per cent to the user, but soon transfers were made free in order to encourage trade.

The real bank note (*kiao tseu*) appeared in Sseu-chuan at about the beginning of the eleventh century. Silver was deposited in the funds (*kuei-fang*) and checks given in exchange. Almost immediately, the government conferred the monopoly for such operations on sixteen merchants in return for a tax of 3 per cent. In 1023 this monopoly was transferred to the state. Bills were current for two or three years, but redemption soon spread out and exceeded the issue time limits, swelling the amount in circulation and causing an inflation. By the end of the northern Sung dynasty the notes in circulation were far from corresponding to a sufficient metal reserve and their values diminished with each new issue. In 1160, after the collapse of the southern Sung dynasty, the issue of bank notes by private agencies was forbidden, and such notes

replaced by official ones (*kuan tseu*). These notes suffered the same fate as their predecessors and inflationary measures placed them in danger.

The Chins, sovereigns of northern China, also used bank notes, but the periods of circulation of notes were shortened (1189); meanwhile, geographical restrictions on circulation remained. The Yuans, who succeeded them, made a fundamental modification to the use of paper money. In 1260 they issued notes (*chong-t'ong*) in ten decreasing denominations from 2,000 to 10, guaranteed by gold and silver reserves, and without any temporal or geographical restriction on their validity. In order to increase the credit of the notes, they demonetized gold, silver and copper. But once again the temptation to use the reserves won the day. Drawings on them in order to finance military operations and religious ceremonies resulted, between 1280 and 1350, in a slow but sure inflation which led the Mings to give up this system. The latter, however, had served the economy well, since the empire owed a vast increase in trade and revenue to it, taxes in currency alone having increased from 3.9 per cent under the T'ang to 51.6 per cent under the Sung dynasty.

In addition to the financial measures, instruments of credit were the subject of careful modifications on the part of the various governments. The old type of bargain made before witnesses and guarantors by the measurement of fingers (*hua-cha*), not to be confused with finger-prints, remained in force not only in China but also in Korea, Japan and Annam; to this, the T'angs added a guarantee forbidding the seizure of property of a value superior to that of the debt.

It was under the Sung dynasty that two important changes aimed at reducing rates of interest were introduced. One was the specification of an annual rate of interest, concurrently with monthly rates, so as to avoid the disadvantages of the intercalary months. The other was the introduction of decimals in the fixing of interest rates, thus conferring greater flexibility on transactions. Since 511 it had been illegal for the total interest to exceed the amount of the original loan or to calculate compound interest. However, despite efforts to lower it, the rate of interest remained high; it was between 6 and 7 per cent per month up till the time of the Yuan dynasty, when it fell to 3 per cent, and even then these measures only affected private loans, since the government reserved the right to go up to a monthly rate of 12.5 per cent in exceptional cases for loans of grain. In normal times, however, the state could be indulgent. Grain from the public granaries was often lent at the monthly rate of 3.75 per cent. The reformer, Wang Ngan-che, instituted in 1072 loans for the purchase of agricultural implements or movable property at an annual rate of interest of 20 per cent. But this short-circuiting of the loan system displeased the powers that be and the institution was abolished in 1085. The level of annual rate of interest considered as normal by an author of the twelfth century was between 50 and 70 per cent, and under the Yuan dynasty it was estimated that three years were required in order to double capital. It goes without saying that these loans terrified the private individual, that the usurers (*che-k'u*) rapidly

made their fortunes and that the temples, with their swollen treasuries, also took a hand in the game, while the auction sales and the lotteries went on flourishing in the shade of the monasteries. Reaction took the form of 'friendly societies'. Individuals banded together in order to provide the money for exceptional, though justifiable, expenditure, such as that connected with marriages, funerals and promotions. In the eighth century these societies (*ho hwei*) averaged a membership of between thirty-five and forty who paid a monthly contribution (*che*), the beneficiary being drawn by lot. Chu Hi (1130-1200) made the system official by setting up special granaries (*che-ts'ang*) managed as co-operatives by the beneficiaries.

All these measures and all these institutions were more or less common to all the territories in the Chinese orbit. However, mention should be made of the wealth of the Japanese mines—silver mines discovered in the seventh century, and copper and gold mines discovered in the eighth century—which made possible the export of metals to China and caused that mirage of a Japanese Eldorado which tempted the Mongol invaders.

At that period, practically all the countries of Asia were acquainted with the cornering of precious metals, preferential investment in movable property, the use of currency restricted to public finances, the lack of banking facilities and short-term loans at exorbitant rates of interest. All these elements, despite remarkable innovations, did not allow China and her market to change from a public economy to a monetary economy. It may be as well to recall here that certain sociologists trace back the origins of capitalism to the establishment of tea factories with twenty foremen by Liu Kin-chen shen in the eighth century and the organization of embroidery carried out by workers in their homes by Wu Tsuen (845-6). However, the first signs are more clearly discernible at the time of the Sung dynasty in the south and even more clearly during the Ming epoch.

D. Town-planning and Daily Life in China

The many changes which affected the lives of peasants, craftsmen and tradesmen also influenced the way of life.

There was a change in the appearance of towns: the flat, windowless façades of the old town were gradually replaced by a network of shops all huddled together and providing a spectacle of intense activity. The house remained simple and standardized; everything was supported on wooden pillars which carried the various elements of the framework and the floor. The walls at the gable ends were windowless, while the others, which were simple partitions of puddled clay or mud filling in the spaces between the uprights, had openings in them, often decorated with lattice-work and covered with oiled paper. The building, which was always rectangular, consisted of a front room where the work was done and a back room where an average of five or six people lived.

The most important architectural element was the roof, which rested on

the corbels which had already been generalized by Han architecture. In luxury buildings, such as official palaces and Buddhist temples, these corbels were skilfully decorated. Among other things, they made it possible to construct curved roofs turned up at the eaves. This characteristic profile may perhaps have been derived from a desire to increase the amount of shelter without making the rooms darker. However, the practice was not general, and there were certain imperial ordinances pointing out that this type of roof was reserved to the houses of the aristocracy and official buildings. The addition of ornaments, such as dragons, phoenix or fish, on the corner rafters was also subject to regulations. In spite of the simplicity of the elementary rules of construction, Chinese architects knew how to take advantage of the possibilities offered by constructional frameworks, as is shown by the treatise on *Ying tsao fa che* (Method of architecture) written by Li Kie in 1097; in this he shows all the possible combinations of corbels and all the virtuosity of wood carving in the infinity of trellis-work motifs.

As we shall see in connection with art (cf. Chapter XIV), the development of building depended on the use to which the building was to be put and the rules of etiquette or ritual which the builders had to take into account.

The number of buildings with upper floors increased, particularly under the Sung dynasty. Odoric de Pordenone mentions buildings of eight to ten floors; Arab travellers speak, more plausibly, of three to five floors. Under the Sung dynasty, too, there came the bourgeois house with stout walls and tiled floors which made it possible to keep one's shoes on when entering, although, in Japan, floors still remained fragile.

In addition to this feature of town houses, there were all the improvements connected with large towns. Contemporary descriptions of K'ai-feng or Hangchow in the thirteenth century provide a faithful picture of these cities. They were always surrounded by walls of dried, pounded mud and stone; these walls were 9 metres high, 3 metres wide and surmounted by battlements; they were whitewashed every month. The Grand Imperial Road was 300 metres wide at K'ai-feng. At Hangchow it was 60 metres wide; originally, it was an alley 30 metres wide covered with gravel and reserved for the emperor; this central alley was bordered to a width of 15 metres on each side with stones and bricks; water was evacuated by means of an underground drain.

A number of side streets connected up the houses grouped in districts, which were demarcated by the larger streets. Numerous canals, spanned by more than a hundred bridges, made a further contribution to the transport system. The communications system of Hangchow was much admired by visitors; there was a daily garbage removal service to ensure cleanliness, canals were dredged every year and the streets were regularly maintained. There was a housing department which fixed rents in accordance with the number of inhabitants, with renewal of tenancies on feast days and major occasions.

Around the towns were also grouped temporary dwellings: boats used for transport or supply, military cantonments and camps for disaster victims with

rainproof shelters. These were the victims not only of floods but often also of fire and fire was a major preoccupation of the town authorities. The town was divided into fire protection sectors including watch towers and guard rooms every 500 metres, each of which had a crew of one hundred firemen with fire-proof clothing and buckets, axes and saws. The inhabitants also had the advantage of a health service: baths, dispensaries, hospitals and orphans and old people's homes. The citizen had a wide range of facilities available to him in everyday life. He could take a bath frequently, the normal periodicity being once every ten days; officials were allowed time off for this purpose. Women could cover themselves in unguents and cosmetics—base of white colour or dark pink powder; they painted their nails with balsamine rouge, oiled their hair and plucked their eyebrows; they also, with more painful effect, bound their feet. According to tradition, this particular form of beauty treatment was originally the idea of P'an Fei, the mistress of Hiao Pao-Huan (d. 501) or that of Yao-niang, the favourite of that royal man of letters Li Yu (975-8), who had asked her to reduce her feet to points so that she could dance on the space of a lotus flower. The hideous deformation resulting from this practice had the effect that women would never show their bare feet; thus, this part of the body became the most jealously guarded seat of feminine intimacy and its erotic effect is noted by all writers. To touch a woman's foot was to ask, without ceremony, for her most signal favours.

Well-dressed, washed and groomed, the citizens could rest on a little bench, munching a few warm noodles or cakes bought from a travelling merchant, or in a luxurious establishment embellished by pretty serving girls, singers or dancers. The gastronomic inventories which have come down to us mention several hundred dishes made from pork, mutton or dog flesh, poultry, fish, oysters, mussels, pastas and ravioli. However, only pork and fish were available to the poor, while the rich could make their choice of a wide variety of game. Condiments, such as pepper, ginger, pigments, soya sauce, salt, oil and vinegar, were used not only for seasoning good meats but also all sorts of giblets—liver, kidneys and tripe. The only food element lacking was milk, cheese and beef, for breeding was limited and the animal far too useful. Banquets were accompanied by rice alcohol, or more rarely by grape wine—a luxury of the T'ang dynasty—together with raisins and imported dates; tea was always served.

In addition to the multitude of small trades, there were many and varied authentic spectacles: archery competitions, fencing, football and polo matches, wrestling; in the amusement quarters (*wa-tseu*) it was possible to appreciate singing, music and dancing, circuses with animal tamers, jugglers and acrobats, marionette theatres and puppet shows. Fishing with cormorants, which had been introduced from Japan in about the tenth century, was also practised. The peaceful citizen could indulge in numerous games: old games of dice, chess, backgammon and, as from the time of the T'ang dynasty, cards, dominoes and mah-jong. Or he could remain at home and listen to the cricket

singing in its little golden cage. If he was feeling frisky, he could go off to the cabaret and listen to the girl singers whose trade was officially recognized and hire their services for a moment. At K'ai-feng in the twelfth century he could even have found sexual perverts who sold their charms exceptionally under a liberal régime. The grand ladies who were kept by magnates had many musical and vocal talents; they were veritable artists, foreshadowing the noble corporation of Japanese geishas. Others, who offered their bodies for sale without any feeling of guilt, were very numerous—20,000 in the city of Cambaluc (present-day Peking) alone. 'And I tell you there are so many for people passing through it's wonderful', recounts Marco Polo in his admiration for this country where the technique of high living was as well developed as the others.

2. INDIA AND SOUTH-EAST ASIA

Whereas during two centuries of Indian studies the most important fields of Indian civilization have been conscientiously explored and whereas, in particular, works concerned with philosophy abound in all languages, the record of ancient India's material equipment remains comparatively undeveloped. It might be thought that this lack of balance mirrors a permanent feature of Indian genius—its speculative, rather than practical, character. But let there be no mistake—the Sanskrit texts describe a great number of techniques and the excellence of the latter is confirmed by the admiration expressed by foreign observers, whether they were Chinese pilgrims, who might perhaps be suspected of excessive enthusiasm for anything Buddhist, or Arab authors, such as Al Biruni, who certainly were not influenced by the same motives.

The fact is that the lack of importance attached to descriptions of techniques in the ancient texts is connected with the hierarchy of values. It is not a matter for astonishment if there was no ethnographical interest in medieval India encouraging observation of the methods used for milling corn or hoisting building material. Moreover, whereas in the case of science and philosophy, diffusion of knowledge is essential, apprenticeship in crafts was carried on in the family environment, and even where specialized texts exist they often take the form of memoranda which tell us little in the absence of the oral and practical teaching which accompanied them. Thus, the perfecting of the various techniques, some of which made remarkable progress during the period with which we are concerned, was accomplished in conformity with the traditions of the various crafts. This is proved by a mere observation of the medieval monuments, the size of which increases regularly from the very modest dimensions of the Gupta temples. But traditional Indian thought, as opposed to modern western conviction, sees this as a regressive movement. We belong to an age—the age of *kali*, in which *dharma* (good) is declining, the ancient purity of morals is forgotten and love of pleasure and money has

become one of the essential motives of human activity; and technical progress itself is evidence of this increasing ascendancy of materialism.

A. Agriculture

The most important activity from the economic point of view is agriculture. The Indian people are a race of farmers, and this predominance has shaped the countryside, the way of living, and even the social structure; Indian life is essentially the life of the country, and the basic cell is the village. But the rural mentality is imbued with a traditionalism which acts as a brake on development and perpetuates archaic ways of living. The result is that rural India is not very different from what it was seven centuries ago, and even then it had scarcely changed since the times of the *jātaka*—the harness and tools used by the farmer have changed very little, and the scenes portrayed on old Buddhist reliefs can still be seen today. (Pl. 4c.) A method for raising water studied by A. Foucher in a *jātaka* is still in use today. Little would have to be added to what has already been said concerning the previous epoch.

Of all the various plants cultivated, cereals had pride of place. Rice cultivation provided the basic food for the majority of the population. Texts and lexica (*kosa*) distinguish among a large number of varieties, but they also list varieties of wheat and barley, leguminous plants, oleaginous plants (linseed and sesame) and sugar cane. Agricultural techniques, which were highly developed, included the study of soils, which were classified according to their dryness and method of irrigation, while other details, such as an examination of the colour of the earth, were not neglected. It was suggested that crops should be adapted to the nature of the soil. Forestry provided, among other things, camphor and sandal wood, which were considered as luxury products. Arab writers of the ninth and tenth centuries sang the praises of the fertility of the Indian soil. And yet, the abundance of the harvest was subject to the most terrible hazards and the enormous population of India experienced serious shortages during dry periods, as may be inferred from the texts.

On the other hand, the Indian climate demands considerable areas of fallow land for the feeding of livestock. Such land, despite its superficial appearance, is no less useful than fields of crops.

Irrigation. Considerable effort has always been devoted to irrigation in the Indian world—no doubt ever since the Neolithic period. Vast regions were rendered fertile only by this method and it would appear that this has been increasingly so during the historic era, owing to increasing aridity combined, perhaps, with deforestation. The northern part of Ceylon, for example, was irrigated by numerous canals, the maintenance of which was subsequently neglected.

In addition to the archaic systems, methods of raising water include various *yāñtras* (machines) which are variations of the norias (*arghatta*). Lalitāditya,

king of Kāshmir (c. 701–38), raised the waters of the Jhelum to a plateau, thus opening it to cultivation, by a system of norias. These norias were apparently driven by the current of the river. The use of the potential energy of water-courses had been known for a long time in India, whether the Indians had learnt about it from the Greek philosopher Metrodorus, as Codrensus states, or whether it was discovered by an Indian king of indeterminable date, as is affirmed by the genealogical lists of Orissa.

Thus it is that the sovereigns pride themselves on the pools they have had dug—the pool of Bhojpur is one of the claims to fames of Bhoja (c. 1018–60). The Khmer sovereigns, who were particularly concerned with works to the advantage of the public, had magnificent reservoirs (*tataka*) dug; these are known in modern Cambodian under the name of *baray*. In particular, there is the Indratataka of Indravarman (877–89), and the two *barays* at Angkōr—the eastern *baray* (7,000 × 1,800 metres) attributed to Yaśovarman (889–900 approximately) and the western *baray* (8,000 × 2,200 metres) attributed to Udayādityavarman II (1050–66).

In India, pride of place is given to the works undertaken on the orders of Rājendra Chōladeva—the artificial lake he had dug was protected by an embankment 25 kilometres long. Dams of chipped stone were built across the Kāvēri and other rivers. But the civil engineering work we know best is that in Kāshmir, described by the historian Kalhaṇa: we even know the name of the engineer responsible—Suyya. The Vitastā, which flows through the valley is, like its tributaries, a capricious river subject to rapid and dangerous floods. In addition, the resulting torrents transport abundant solids which they deposit on arrival at the bottom of the valley, thus frequently blocking the bed of the river. As far back as the reign of Lalitāditya submerged land had been reclaimed by drainage, as a result of which agricultural production had been increased and the cost of living lowered. But during the reign of Avantivarman (855–83) the situation had become alarming and rice had become so rare that prices were very high. Then it was that Suyya undertook the large-scale project designed to improve irrigation throughout the valley. He proceeded by several stages: first, it was necessary to eliminate the water which was flooding vast areas, and for this purpose to free the bed of the Vitastā from the rocks which were blocking it at a particularly narrow place at the foot of a rocky spur. Next, a dyke of stone was built, which completely held up the flow of the river for a week so as to allow of more thorough drainage and of the building of the elements of protection designed to reinforce and guide the river bed. As a result of shortening the course and displacing the point of confluence of the Vitastā with one of its tributaries, it was possible to dry out marshy areas, and these were opened up to cultivation. More than 60 kilometres of stone dyke were built to contain the Vitastā. A lake was cleverly used as a natural reservoir to absorb the overflow from floods, and canals were provided to distribute to each in turn according to requirements the water necessary for irrigating the fields during dry periods.

B. Architectural Techniques

Architectural techniques, concerning which we are informed by architectural treatises, which incidentally are often more concerned with religious efficacy and symbolism than with practical methods of execution, were very advanced. Hsuan-tsang was much struck by the building of the monasteries he visited and by their size, and Al Biruni distributes similar praise. But we have little information regarding the methods of building used.

One of the striking characteristics of the architecture of India and Indianized south-eastern Asia is the systematic use of what is frequently called the built-up arch, where the space to be filled in is gradually reduced by laying each successive row of stones—or more rarely, bricks—so that it juts out beyond the previous one. However, it is not certain that this was due to ignorance of the true arch of voussoirs, which was used only by the Burmese master-builders.

In medieval temples, the builders used iron girders to reinforce the building. It is more curious to note that the Khmers used wooden beams as filler blocks for this purpose. These, with the passage of time, have disappeared, leaving empty spaces which have helped to hasten the ruin of the buildings concerned.

The methods of hoisting used by the engineers are unknown to us. An obscure passage in Kalhana alludes to a system (*yāñtra*) used by a worker (*karu*) for manipulating a block of stone. Was it a system of pulleys, as A. Stein suggests?

On the other hand, we are exceptionally well informed about the means used for transporting to the top of the sanctuary (*vimāna*) of Tanjore, which rises to a height of over 200 feet, the block of stone crowning it, the weight of which may be estimated at about eighty tons. A huge ramp about 4 miles long had to be built, resulting in a gradient of about 1 in 100.

C. Arts and Crafts

Although on a more modest scale, the techniques of the crafts conferred considerable and, in the event, dangerous prestige on India. India was the land of luxury and perfection in all spheres.

Medieval encyclopaedias and treatises list a great number of minor arts respecting traditions transmitted within the caste and slowly perfected and enriched by generations of craftsmen.

The textile industry is one of the most ancient of India. Muslins, by which name we wrongly honour the Mosuls and which the Portuguese more aptly designate by the Banāras name of Cassa (*Kasa*), were not the only export product. Only the Indians were able to impart to cotton fabrics a brilliant, durable colour; it would appear that remarkable decorated fabrics found in Egypt are of Indian origin—or even of Indo-Chinese or Indonesian origin, according to Alfred Foucher. According to Chau Ju-Kua, Gujarāt exported fabrics of this

sort. Thus, coloured silk threads were mixed with cotton. In addition to sheep's wool, goat's and even stag's hair were used.

Two methods of decorating fabrics, which were peculiar to the Indian world, give very fine results. The first is known by the Indonesian name *bātik*, but is also exercised in India where it is known by many names. It consists of protecting the design by wax before dipping the fabric into the dye bath. The second, known in India as *patōla*, consists of dyeing the yarn before weaving in accordance with calculations ensuring that the pattern will appear on both sides of the fabric. The origin of these processes is unknown, but it may be assumed that they were spread through Indonesia as a result of Indian exports. *Patōla* is practised in Burma, and the Japanese *kasuri* is allied to this technical process.

Tanning is also a traditional Indian craft, chiefly practised in Gujarāt; the skins of the ox, the buffalo and the goat were tanned. India exported braids and cushions of dyed leather (red and blue), embroidered with gold and silver and decorated with inlaid designs.

It will suffice merely to list the other minor arts: carpet-making, ceramics, ivory working, woodworking, glass-making, etc., without forgetting jewellery—Indian jewellers were justly reputed and the majority of pearls used throughout the world came from the beds of Pāṇḍya.

Metallurgy. Metallurgists worked with copper and bronze, iron, lead and tin (especially in Bengāl), silver and gold. The arms manufacturers of the Deccan were highly reputed; they also practised damaskeening (gold and silver on copper) which European terminology attributes to the city of Damascus. Among the more brilliant metallurgical achievements may be cited a copper vase weighing nearly 300 kilogrammes at Tanjore, but it was principally iron work which was remarkably in advance of its time. In the temple of Konārak, iron girders more than 10 metres long and 18 to 19 centimetres square in section were used. As for the Dharaïron pillar, about 15 metres high, it is the highest of its type in the world, and the European foundries of a century ago would have had difficulty in making it.

D. Urban Life and Trade

Urban life fulfilled three requirements, administration, trade and the crafts. The capitals of the various states therefore included a palace with various out-buildings, each containing a government service; markets where the various taxes were paid under the supervision of the prefect, craftsmen's districts and also numerous temples founded by the kings. Many capitals were also holy places as in the case of Bādāmi, Aihole, Paṭṭadakal, Khajurāho, Māvalipuram, Kāñchī, etc. Parks embellished with groves and fountains were not confined to large towns and in a humble village a family of Brahmins from which the poet Bilhaṇa came had planted a splendid garden. Such places of

recreation were not devoted exclusively to amusement and lovers' meetings, but also to meditation and study: a great many religious discussions took place there.

This description, which is valid for India generally, owes much to a Jain document praising the town of Anhilwāra in the Gujarāt, located in a region which, even to this day, has always been traditionally Jainist in religion and mercantile by vocation. The periphery of the town measured 12 leagues and it contained numerous temples and monastery-colleges. There were eighty markets, and the various trades—craftsmen, jewellers, doctors, bankers, genealogists, etc.—were grouped by districts. Far from there, in the Tamil country, Tanjore, according to an inscription, had no doubt been built on the same principle; it contained twenty-five main streets. Both manufactured and natural products gave rise to extensive trading on both the domestic and the foreign markets.

India mainly exported luxury articles and textiles, dyes (indigo and *myrobalan*), spices, pearls, precious stones and ivory. She imported incense from Arabia, horses (which were very costly owing to the hazards of the journey) from Persia, silk from China and also ore (particularly tin, although Ceylon produced it too) and gold, silver, copper, lead, spices and perfumes (*nard*) from Indianized south-eastern Asia.

Trading methods were highly developed, at least from the time when the *Kauṭilya Arthaśāstra* was drawn up. Many tradesmen acted as bankers and money-lenders. In the Middle Ages, mention is made of various contractual documents (*patrika*, *pattaka*, *cirika*, *hundika*), many examples of which are contained in a manual for the use of public writers and clerks. Unfortunately, this manual—the *Lokaprakāśa*, attributed to the Kāshmirian Kśemendra eleventh century—was amended and adapted to changing conditions right up to the eighteenth century. Of the words mentioned above, the most interesting is *hundika*, which was adopted by the Anglo-Indians (*hoondy*) and signified a promissory note; this presupposes a system of credit. It was Al Weber who first put forward the suggestion that this word might have been borrowed from Persian and signified literally 'the document in the style of India' (*Hind*). This would indicate that the promissory note, used first of all in India, spread from there to neighbouring countries.

There were merchant guilds organized in the form of trade corporations. The best known from a number of records, and also the largest, which had its own caravans, ships and even troops, was a veritable Hanseatic League of the Tamil country, penetrating into the countries of six continents by road or river, and engaging in all sorts of wholesale and retail trade, particularly in horses, elephants, precious stones, perfumes and drugs.

Land routes were a long way from being safe when they crossed desert regions or those peopled by aboriginal tribes, but in India they were traditionally very well equipped. In Outer India, the Khmer sovereigns took a permanent interest in public works, and one of them—Jayavarman VII—

distinguished himself by having had built, during the first few years of his reign, 121 road-posts about 10 miles from one another. The land routes giving India access to the outside world were four in number: 'the Indian highway from Bactres to Taxila', of which Alfred Foucher has made such a thorough study, was never cut as a result of the Moslem occupation. But the traffic from Gilgit through Dardistan, Chitrāl and the Swat valley was considerably increased. Kasnur, through which caravans originating from many countries passed, closed its frontiers for a time after the victories of Mahmūd of Ghazni, for fear of the Moslems, but the country could not live without external trade for long. This was the starting-point of the long and dangerous direct route to central Asia through the Karakoram pass. Lastly, the insecurity reigning in central Asia conferred some importance on the difficult road through Burma.

Sea voyages had scarcely changed since the days when Fa-Hien, who had returned from India to China by way of Java and was once ninety days at sea without touching land, spoke of ships capable of carrying more than 200 men. But the Arabs participated far more actively in trade after the foundation of Islam, and the light ships coming from the west rigged with the Arab sail, which rarely ventured into the seas of the Far East, met up in the ports of Malabar with heavy Chinese junks carrying lug sails which, in those days according to Marco Polo, were far more numerous than they are today, when they scarcely come any further than Singapore. At that time, it would appear, Cape Comorin marked the frontier between the two types of ship, and it was not rare for transshipments to be effected between Quilon and Vellūr.

Indian carpenters were remarkable technicians, and the Arabs sometimes engaged them to build their larger ships. A Sanskrit treatise describes various types of ships and even provides measurements (information supplied by R. C. Majumdar). The iconography is more directly expressive: whereas the junks of the Angkor bas-reliefs are perhaps Chinese, the Borobudūr bas-reliefs represent eight ships, five of which have at least one outrigger of a clearly original type. These are large two-masted ships with trapezoidal sails. (Pl. 5a.)

In spite of the gaps in our information, due either to lack of documentation on certain points or to inadequate study of the documents which do exist, it is evident that Indian technicians had attained a high level of efficiency at the end of the Middle Ages.

It would not appear, however, that subsequent developments were as rapid as in Europe. From that time on, India began to assume a backwardness in this sphere, which could surely have been made up for by the resources of her own genius, if only she had been aware of it. But she was then living in comparative isolation, and her foreign relations were directed by preference towards south-east Asia, towards that 'Greater India' to which she contributed infinitely more than she could hope to receive. When she forged closer bonds with the west, it was through the intermediary of a different civilization, of which she became, albeit very much in spite of herself, an integral part.

3. THE ARAB WORLD

Any attempt to treat of the history of social behaviour, to gain any detailed knowledge not only of everyday life, but of clothing, furnishings and the objects with which individuals liked to surround themselves, is beset with difficulties. It is essential, however, to attempt at least a clearing of the ground, keeping in mind that Islam, and the skilful craftsmen it had at its disposal, brought a great impetus to trade and to certain industries. The general impression remains of stagnation rather than of any material progress, and evidence of anything that might be termed technical experimentation is small, unless it is that judgment is falsified by the multiplicity of invention in more recent periods. In the old techniques, there was, in the period following the Arab conquest, no deterioration, but, equally, no advance.

Moslem society was not interested in the problem of fatigue among manual workers and quite unconcerned about raising industrial productivity. On the one hand, the continuance of slavery constituted an insurance against a shortage of labour, but, on the other, the employment of a slave population was not calculated to stimulate invention, to which little attention was paid anyway. Industry, moreover, remained, save perhaps in the manufacture of textiles, in the craftsman stage, and he was concerned mainly with the production of consumer goods, which might explain why the design of tools remained static, and there was no sign of a revolution in technical methods.

A. Agriculture and Rural Life

The maintenance by the Arabs, in the regions they conquered, of the basic system of the great rural estate, with the fellahin forced into serfdom, contributed to economic prosperity. The new masters found in use and ready to their hand practices and techniques for the preservation of vegetation and the prevention of flooding problems that had been solved by ancient civilizations. The Mesopotamian canal system was not the work of Moslems. In Persia and Afghanistan, and in Turkestan, for instance, the Moslems found a network of artificial irrigation already functioning, with the water brought underground from catchments in the mountains to the areas of cultivation. The device of underground ducts was one commonly employed in Arabia, Armenia, and the Sahara oases: the gardens of Marrakesh owed their splendour to just such a system.

In Egypt and Mesopotamia, the raising of water was often simply by means of rope and bucket. When the distance it had to be raised was slight, the task was effected by means of the Archimedean screw, or the levered water-elevator, called in Egypt the *shaduf*. A regular amount of energy lowered to the water a leather container suspended from a tapering pole, which was fixed at right angles to a horizontal beam, at the other end of which was a counter-weight, often simply a mass of clay.

The *noria*, a machine worked by oxen or camels, with their eyes covered to prevent giddiness as they walked in continual circles, was almost universally used. The action of the animals worked a horizontal wheel, which was geared to a vertical wheel to which was attached a series of scoops, jars, or pails.

In places, where the banks of the watercourse were high, as, for instance, along the Euphrates, at Hama on the Oroñtes, at Amasia on the Yeshil Irmak, or at Toledo in Spain, the current of the river itself was used to turn water-wheels, which produced energy for flour and paper mills. At Toledo there was one enormous wheel, 150 feet in diameter. The technique of using water power in this way spread from Spain to Morocco.

In Transoxiana, Suse and the Yemen, irrigation was contrived by means of dams with water-gates. In Seistan, wind was used to turn mill-stones and also to draw up the water needed for the irrigation of the land. 'A millstone is attached to the end of a wooden cylinder, half a metre wide, and 3.5 to 4 metres high, standing vertically in a tower open on the north-east side to catch the wind blowing from this direction. The cylinder has sails made of bundles of rush or palm leaves, attached to the shaft of the axle. The wind, blowing into the tower, exerts strong pressure on the sails, so turning the shaft and millstone.' (Khanikoff.)

In Persia and north Africa, on the other hand, the method used was the Artesian well. 'A deep hole is dug and its interior carefully propped up, and excavation is continued until a layer of very hard rock is reached. This layer is then attacked with picks and mattocks until it is very thin: at which point the workers climb out of the hole and cast down into it a heavy piece of iron. The layer gives way and the underlying water can rise through it; the hole fills, the water overflows at the top, and behold, a stream. On occasion the water rises so quickly it carries away everything in its passage.' (Ibn Khaldun.)

Moslem law contains explicit regulations about water. The dredging of the canals and the strengthening of the banks was a collective task in which river-side residents could be ordered to participate; if they defaulted, it was carried out at their expense. Systematic irrigation was a necessity for certain crops like sugar cane or rice: the rice-fields had to be kept continually under water and the water changed every three days. In Persia, as in Egypt, the distribution of water for irrigation was stringently controlled: sand-glasses registered the time that consumers drew on the supply, and water-gate systems permitted the measuring of the volume of water drawn. Leo the African speaks of the filling of water-clocks: 'when they are empty it is the end of the irrigation time'. There are also references to the activities of a skilled personnel, and even of diving teams.

In lower Mesopotamia, at the beginning of the Arab period, an abnormal swelling of the waters of the Tigris and Euphrates so deeply flooded the region as to leave permanent lakes there. In the reign of the Umayyad caliph, Mo'awia (660-80), an attempt was made to drain them by cutting down the reeds that covered them and forcing the water back with dykes. For this

particularly arduous work, slaves were brought over from the east coast of Africa. The slaves, however, eventually revolted, and a lengthy slave war ensued.

Agriculture was carried out with tools of a rudimentary kind that unenterprising agriculturists saw no necessity to improve on. In some areas, in Egypt for example, cultivation had scarcely got beyond the gardening stage.

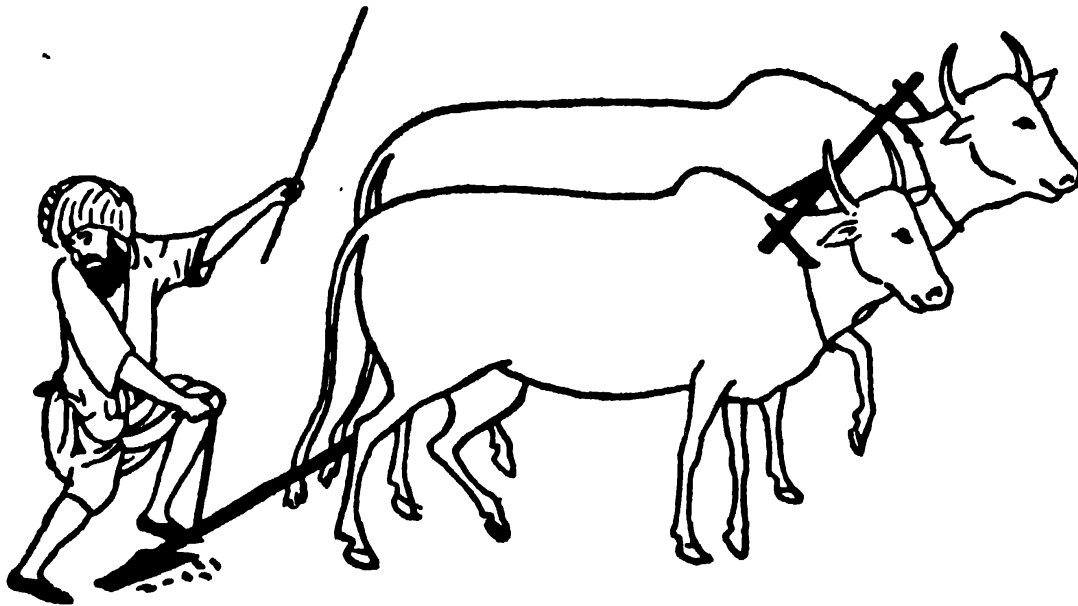


FIG. 1. Arabian plough: Persian art, 1578 (after a drawing, Paris, Musée du Louvre).

The swing-plough was still of very primitive design, with neither coulter nor mould-board; it was not designed to turn the soil over and had only shallow penetration. It was so light that a man could carry it on his shoulder. Joinville noted this 'wheel-less plough' with astonishment. Almost any animal might be used to pull it—camel, ox or donkey—harnessed in a most rudimentary fashion with thongs, rarely of leather, usually of rolled or plaited alfalfa-grass (Fig. 1). Other agricultural implements, as shown in miniatures of the late thirteenth century, were the triangular or rectangular spade (Fig. 2); the navvy's shovel; the harvester's sickle, smooth or toothed, with a rather long shaft and the blade untapered; the fork; the rake; the hoe; and the inevitable flail. For the poorer peasants threshing was a laborious process of beating with sticks. Some threshing was done by animals trampling out the grain in circles, some with a sort of chopper (the *noradj*, in use in Sicily and Egypt) with the help of a pickman and a winnow, the latter wielding a six-pronged fork. The husks of rice were beaten off with a mallet. Grinding, on the smaller holdings, was by means of a handmill, a sort of very simple pounder; the working of this was reserved for the women. Some villages had large water-mills, and floating versions of these were set up along the rivers for the use of riverside dwellers.

Such water-mills, mounted on rafts—a type often found in Spain—became so numerous on the Tigris that there had to be legislation controlling them.

There was some difficulty in fitting together the cycle of agricultural activities and the Islamic lunar calendar; the local almanacs used the old calendar to provide a basis for work schedules. It is uncertain whether the technical works written in Arabic merely reflect a state of affairs already prevailing, or whether they had any influence on what went on in the fields. It is, at all events, impossible to disregard the very considerable agronomical literature of Andalusia, and, in particular, the famous *Calendar of Cordova*, issued in 961. 'These treatises are virtually alone in their treatment of the variable aspects of Andalusian soil, manuring, irrigation, ploughing, and weed elimination, as well as action against parasites, birds, and insects.' (Levi-Provençal.)



FIG. 2. Spade, late thirteenth century (after a miniature, Paris, Bibliothèque nationale).

The external structure of the village varied across the two continents controlled by Islam, with the regions differing according to the materials available, the nature of the terrain and long-standing custom. The Egyptian village had a very characteristic appearance: the huts were huddled close together so as not to encroach on one single unnecessary inch of cultivable earth. The appearance has scarcely changed for centuries; one modern observer has described it as a collection of low huts 'crushed up against each other'. Built on a mound out of reach of the flood-waters of the Nile, the village often gives the impression, in colour and in the uniform shape of its houses, of a series of gigantic mole-hills. No attempt is made to provide flooring, other than the beaten earth. Alongside these hutments, which are built of mud and unbaked brick, structures in pisé or cob, perhaps with a lathwork reinforcement, are sometimes erected. Mention must also be made of the 'sugar loaf' villages around Aleppo, and a few Kabyle settlements in north Africa, perched on peaks difficult of access, where the huts are made 'of sun-baked brick, decorated with geometrical patterns, and embellished with turrets and machicolations'. On the other hand, enthusiastic appreciation is with reason accorded to the bastioned walls of the buildings of the nomads in central Morocco, including barns and yards for the animals, their 'silhouette reminiscent of Norman keeps or Rhenish castles'.

Except in regions where stone or basalt was available, buildings were made of unbaked brick, and interiors were everywhere almost uniformly lacking in amenity—less well kept, certainly, than the nomad's tent. Furnishing, except in the towns, was almost non-existent, save for the indispensable cooking or laundry equipment. Islam generally was little concerned with its peasant class, who were regarded simply as a class put there to till the soil so as to ensure a good living for its owners.

In certain rural centres, markets were held at regular intervals for the sale of forage, poultry and livestock, and for the wholesale buying of vegetables for the victualling of the cities. The Egyptians had retained the ancient use of 'chicken ovens', or artificial incubators, in which 'eggs were hatched without hens'. Chickens, indeed, were produced in such numbers that they were sold in 'measures without bottoms, that were placed in the basket of the purchaser'.

B. Urban Life

William Marçais has shown how indispensable urban life was for the realization of the social and religious ideals of Islam.¹ As evidence of this, we can list a string of towns of Islamic foundation: Kūfa, Wasit, Basra, Mosul, Baghdad, Fostat, Cairo and Shiraz in the east, and Qairuan, Mahdia, Algiers, Oran, Tiaret, Tlemcen, Fez, Marrakesh, Bougie and Rabat in the Maghreb. It is noteworthy, too, that of this list some fifteen still flourish, no mean achievement in view of the numbers of towns which elsewhere have disappeared.

The Moslems were to discover, preserve, or found towns and cities of the

most varied types: 'Fez, an upland town, Tunis, a seaport, Qairwan, a city of the steppe.' To Moslem civilization, then, we must attribute the settlement of the nomads (less perhaps because agriculture offered them an easier way of life than out of concern for security), and very marked progress in urbanization.

The Moslems modelled their cities on those of antiquity. Bisected by a principal street, and crossed by others at right angles they frequently reproduced the geometric pattern of the ancient cities. As is true of so many of the world's cities, the 'centre of gravity' of the Moslem ones was the place of worship, in their case the mosque, around which spread the market area, which, as in antiquity and in medieval Europe, consisted of 'specialized' streets, 'You emerge', as the Spanish traveller, Ibn Djubair, put it, 'from the street of one trade to enter that of another, until the gamut has been run of all the town's trades.' The shops are said to have been like 'great packing-cases with one side removed to show the inside'; and in his work on Aleppo, Jean Sauvaget has described the process of closing the shop by means of a double wooden shutter, the higher part, when raised, serving as a roof, and the lower, which was hinged, as a display-counter and seat.

Stress might be laid on the proximity of chief mosque and markets: it is interesting to note that in some places the names of merchants were inscribed on the mosque's sanctuary doors. And when the great mosque of Seville was moved it was followed by a wholesale transfer of business activity. Each town had at least one mosque, often several, which, in early times, served as the magistrate's court and as a religious and political meeting-place. The principal market more or less corresponded to the ancient forum.

Some cities had their origins in camps for an occupying power's troops and administration at the time of conquest and, sometimes, for some period afterwards; Qairwan, for instance, originated as a parade ground. The ephemeral capital of Prince Ibn Tulun in Egypt was destroyed before it had emerged from the state of being a palatine town. It would seem usual that towns gradually grew and developed from camps and administrative centres, to become places of trade and centres of intellectual life. Most of the large cities of Persia and Mesopotamia were surrounded by strong fortifications, and the magnificent walls of Cairo remind us that it, too, must have had similar beginnings.

Depending on the period or in conformity with their function, such buildings were known by a Persian name *khan* or by a Greek name, *funduk* or *kaisariya*, or by an Arabic word *wakala*. They presented a certain uniformity: square buildings around a large round court, and a portico that held a gallery. The ground floor included large storage halls. On the first floor there were apartments which were harem rooms without furniture. One large gate, like in a fortress, gave access to the building: it constituted a protection against riots.

Certain cities benefited from canalization of drinking water which had been put into effect in antiquity; others made reservoirs to ensure their supply. In Persia, drinking water was obtained through subterranean aqueducts. One or

two favoured cities had wells; others, like Samarkand had installed lead piping systems. Yet others, like Antioch, enjoyed a plentiful supply of running water for gardens and the consumption of its inhabitants; it was carried in small pipes to the more luxurious dwellings, to provide the water for fountains. In Egypt, at Fostat and, later at Cairo, delivery of water to houses was made by camel and ass, or by human porters. Measures had to be taken in the streets of Cairo to combat the heat and dust, an operation requiring the mobilization of a large number of camels. 8,000 camels, each with a leather bag on either flank containing the equivalent of a small barrel, were engaged in distributing the waters of the Nile. The number of human water-carriers has been estimated at 100,000. Men were to be met with on the roads, carrying goatskin bags of water fastened across their shoulders by linen straps, ready to sell a drink, from a silver or brass cup, to whomever wanted to buy. At Seville the Almohads of Morocco put an end to the labours of the water-carriers by the construction of an aqueduct, and no reminder is necessary of the famous engineering work by means of which Zubaida, wife of the caliph Harun al-Rashid, procured water for Mecca.

Urban Building

In some of the important cities, such as Fostat, Syrian Tripoli and Tyre, there were apartment-houses of five, or even seven, storeys. Those entrusted with the construction of large official buildings had not to go far for their materials; for, in Mesopotamia, Syria and Egypt, they took their stone from the ancient monuments. The oriental master-builders, wishing to be sure of the strength of their buildings, would introduce rows of columns into the masonry to have a binding effect. From the twelfth century onwards, the walls of ramparts and citadels were often strengthened by buttresses. Persia remained the country most faithful to the use of brick. The Persian building industry, therefore, required the opening of brick-yards to supply both baked and unbaked bricks. There were laws prohibiting these manufactories within the bounds of urban areas. Manufacturers of unbaked bricks enjoyed a great prosperity throughout the East. (Pl. 6.) Bricks were made to standardized measurements; some indication of proportions are supplied by the bricks of the ninth century Egyptian mosque of Ibn Tulun, which measured $18 \times 8 \times 4$ centimetres. Walls, of alternate horizontal and upright layers of bricks, often had reinforcing wooden piers. Beams and rafters were also made to standard specifications. It has not been possible to determine what these were, although dialect terms have been found giving the standard diameters of piping for each region.

Aleppo was a building centre of an exceptional kind. There, quarriers and masons were at work shaping and planing blocks of stone. Here, says Sauvaget, were 'no puddled clay with holes in it, no tottery sections of wood work, no rubble-work with the mortar crumbling; here is the kingdom of freestone'. Everywhere else, building was done with rubble-stones. Ibn Khaldun also

describes another procedure. 'Two wooden planks are taken', he says, 'varying in length and width according to locality, but in general measuring some four cubits by two. These are set upright in the foundations, at a distance from each other corresponding to the width the architect has thought fit to adopt for these foundations. They are held together by wooden cross-bars, attached by cords or braces; in the remaining space between the two large planks are placed two small ones, and earth and lime, which is then pressed down with pestles made expressly for the purpose. When it is all thoroughly compressed and the earth sufficiently combined with the lime, more earth is repeatedly added until the space is completely filled in. The particles of earth and lime are by then so thoroughly mixed as to form one substance.' Oriental masons had several kinds of mortar: compounds of clay and lime or of pulverized brick and lime. Most of them retained a Byzantine practice of adding wood ash to the lime.

In Shiraf, on the Persian Gulf, houses, several storeys high, were built in teak. By contrast the dwellings of the inhabitants of certain important places in Arabia—Djedda, for example—were simply reed huts with roofs of straw.

A builder's equipment included ladders made of rope or felt, as well as the conventional wooden type. Trade regulations enforced by the police stipulated that such ladders must be 'of thick, heavy wood, with strong rungs well nailed on'. Miniatures of building scenes show rudimentary scaffolding. To reach the scaffolding, materials were hoisted on men's backs, or carried on stretchers; plaster was taken up by means of a basket and a rope; plasterers' tools were generally trapezoid scoops.

Certain towns had sewage disposal systems, as excavation has shown to be the case in Fostat in Egypt. Each house probably had its own cesspool, in some cases linked by piping to a general drainage network, but more often emptied periodically by arrangement with contractors who resold the manure to market-gardeners in the outlying districts—a most lucrative business.

Particular arrangements were often made to deal with the rigours of climate. The rich residents in Baghdad lived in cellars during the hot season, and others made use of *punkahs*, which were large fans suspended from the ceiling; while in parts of Persia water was trickled down wall hangings. The terraces of Cairo houses, and of some towns in Persia, got their summer ventilation by means of airtraps opening to the north.

Externally humble, of indifferent, often repulsive aspect, internally the houses of the wealthy bourgeois and the administrative functionary were often of unsurpassable elegance and sumptuousness. To quote Ibn Khaldun: 'On the walls are figures in relief, made of a plaster agglutinated by the addition of water. The plaster is chipped away when it has hardened, and is fashioned after a traditional model, with sculptor's iron chisel, and then given an attractive polish. Other wall adornments are pieces of marble or tiling, faience squares, shells, or articles of porcelain, giving the wall the appearance of a plot bedecked with flowers.'

Furniture

In such houses there was no furniture similar to that of Europe. Most of the expenditure on furnishing went on carpets, hangings, and household goods. Luxury for the bourgeoisie in the city consisted mainly in the improvement in the quality of the objects of their daily use, such as clothes, beds, china, and cooking utensils, and in taking more effective measures against the heat. The most remarkable feature in the furnishing of the rich town house was the quality of the textiles. Contemporary miniatures show low beds, or raised wooden benches; a sort of frame mounted on four legs, over which cords of palm fibre were stretched, and covered with a mattress. The general effect did not, by any means, lack magnificence; the specimens of Moslem art which are preserved in museums are striking in their sumptuousness. They testify to the splendour with which the interiors of mosques and of notabilities' houses in the main towns were furnished. Benches covered with long cushions formed divans against the walls, and carpets covered the floors and walls. The chair, which figured quite largely in ancient Egypt, is absent from the Moslem scene. It is conjectured (rightly, it would seem) that furniture in the dwellings of the lower bourgeoisie and also those of the artisan classes was, as in the rural areas, almost non-existent, although cupboards and chests were indispensable. The various parts of wooden pieces were held together not with nails but by means of tenon and mortise joints. Doors were fastened by a sort of sliding

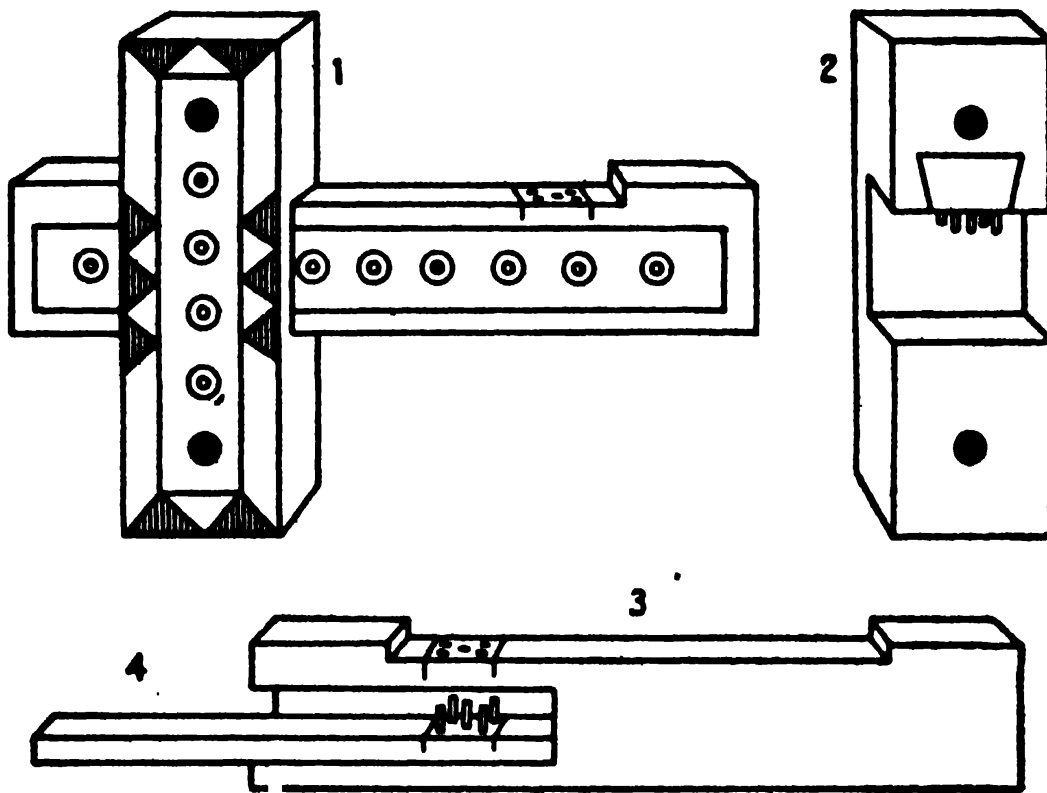


FIG. 3. Wooden keys (after William Lane, *An Account of the Manners and Customs of Modern Egyptians*, London, 1837).

latch. 'The keys', wrote a European traveller, 'are pieces of wood, to which are attached small pieces of brass wire, which raise others lying within the lock from the little holes in which they otherwise rest, which displacement effects the unlocking.' (Fig. 3.)

A study of metal utensils shows that the Moslem peoples had a certain superiority over their neighbours in the field of industrial crafts. Equipment, however, was still of the most elementary kind: 'a whole forge could be set in a space three metres square', says one observer. Even in the nineteenth century, brass smelters could still be seen stationed like mysterious alchemists before their floor level ovens, while others spent hours hammering out bowls and cooking pots.

The range of kitchen equipment was large. A set of them was a major item in the marriage trousseau. There would be different shaped basins, perfume burners, dishes, ewers, various kinds of vases, and lamps. The richest pieces were inlaid, a process consisting either 'in laying a thin thread of metal, gold or silver, in a groove made in the metal to be inlaid, the skilled craftsman often leaving this thread standing out in bold relief to form a very effective kind of *cloisonné*', or 'in controlling the gold or silver lamina or thread by means of slight edges raised with a burin along the sides of, or within the indented lines of, a previously etched design, and then hammering the inlay deep into these grooves'. There are also documents testifying to the quality of work in enamel.

Other articles serving to enhance the decor of those who lived well were ceramics, objects of rock crystal and valuable Syrian glassware which was obtained principally from Tyre, Aleppo, Hebron, and especially, Damascus.

Diet

The diet of pre-Islamic Arabs included a dish, on which they prided themselves, of camel-hair and blood, pounded together with a stone and cooked on the fire. Their poetry speaks of the Bedouins with the empty stomachs who would eat only lizard eggs; and a companion of Mohammed is recorded as having been unwilling to eat chicken because he had never seen one.

In the records, there is frequent harping on the comparison, now a commonplace, of the primitive diet of the Arabs with the rich Iranian one. The nomads existed, and still do, principally on camels' milk, taken cold, hot, or curdled; they also ate dates, of course, and were avid for greasy substances.

Under the Sassanids, gastronomy was carried to great heights; elaborate recipes in the east were of ancient origin. In the great Abbasid era, recipes were frequently the compositions of the eminent, and the foremost disciple of the philosopher, Kindi, did not consider it beneath his dignity to become the author of a work on cookery, giving a menu for each day of the year.

Oriental cooking was very liberal with spices; it was customarily seasoned with condiments and garnished with sauces; and much use was made of oil. Gruel, soups thickened with flour or semolina, and beans formed the staple

diet of the poor, the sufis, the monks and the artisans. This diet was supplemented with minced meat, jellies of flour and honey, and various fritters. The meat-roasters were important members of the community; what they had to sell was generally mutton.

Occasionally one comes upon records of culinary extravagances worthy of the Dinner of Trimalchio—the fishes' tongues of Ibrahim ibn Mahdi, for instance. One passage displays a feeling for what made for gracious living, speaking of 'a well-groomed servant carrying, on a clean plate, fruit covered with a freshly laundered cloth'. It is clear from such evidence that there was in certain circles a hankering after comfort and amenity in hours of leisure, expressive of a genuine *joie de vivre*.

In Spain and the east, and to some extent almost everywhere, there was a lower middle class, a popular class, who did no cooking on their own account, buying their food instead ready-cooked: meat-balls, roast meat, fish, beans, fritters, pancakes and nougat.

According to the degree of wealth of the owner, tableware varied from gold, silver and Chinese porcelain, to simple faience and wood. Eating was generally done with the fingers, but knives were sometimes used, and a guest on occasion might be provided with a sort of fork.

Timekeeping and Measuring

The Sassanids had had built into the throne a mechanism which told the hours of the day. Moslems needed to know the time of day to keep the five daily ritual prayer sessions: for this purpose, they had sundials, clepsydras, sand-clocks and mechanical clocks. Islamic practitioners improved the gnomon by piercing a hole at the top of the stem. They turned their energies also to devising automatic mechanisms: a record is preserved of a clock being sent by the Abbasid caliph, Harun al-Rashid, to Charlemagne, and the Spanish traveller, Ibn Djubair, describes at length the working of the hydraulic clock in the mosque of the Umayyads at Damascus. Less expensive methods were also sometimes adopted: a part of the revenues of a certain *wakf* were allotted to the maintenance of a cock, 'charged' with awakening the *muezzins* at break of day!

Moslem metrology was complicated and subject everywhere to strict control: it varied in different places, influenced both by Islamic tradition and by local custom. The Roman scales were in use, and thirteenth century miniatures also show beamed scales. Sanad ibn Ali, a converted Jew, constructed what were called 'water' scales, intended to expose falsification, and the scholar, Biruni, devised an apparatus to measure density.

Weights and measures were checked. Official stamps indicating the capacity of glass vessels survive from the early Islamic period. There are also in existence vases bearing marks relating them to a system of calibration in use in the days of Mohammed; and a standard cubit-length was always prominently on view in the main market.

Lighting

Oil was the chief source of light, in lamps of glazed or unglazed earthenware, or of bronze, made after a design which had remained unchanged since antiquity. There is to be found in old ceramic pieces and in a few miniatures a representation of the glass lamp, splendid specimens of which survive from the Egypt of the Mameluke sultans. The mosques were lit by circular lamps of bronze, known as *coronae lucis*, or by great glass-cupped chandeliers. There were also chandeliers of copper, the richest of which were set with gold and silver. The manufacture of these was the pride of the Mosul region, until the Mongol invasion dispersed the craftsmen to Damascus and Cairo. Into these chandeliers, placed usually near the *mihrab*, were set long candles of white wax, as 'big as the trunks of palm trees'. The necessary initial flame for the lighting of lamps or candles was obtained by a flint tinder, or by rubbing together pieces of wood of certain kinds, which had empirically proven properties.

Town Planning

An eastern town, in the Middle Ages, was a close-packed agglomeration of houses of varying height, separated by capriciously tortuous alleys, airless and dusty. The plans, outside the areas of the arterial roads leading to the gates of the city, show considerable confusion, the streets entangling themselves like a maze, with frequent dead ends. A street running in a straight line was an exception. There was no need of carriageways, since there were no carriages, but these streets were far from being of the 7 cubits' width recommended by the *hadith*, or of a size 'permitting two straw laden camels to pass without touching'. The leaving of beasts of burden unattended in the markets was forbidden, as also was the passage of any dirty type of merchandise; and laws laid down regulations to be observed by water-carriers.

The princes were undoubtedly fond of large gardens, and the fame of some of those that they delighted in survives today. There is also evidence, however, dating from the ninth century, of the creation of at least one public garden, at Cordova, financed by funds bequeathed by a man of property.

The concern of the public authorities for the post and caravan roads was to assure their security and facilitate life for travellers by maintaining the caravanserais in good condition and building hostelries at stage termini. In certain caravanserais in Persia, there were underground stores of snow, for use in summer. Permanent guardhouses were set up for the protection of travellers, and direction signs placed on snow-covered roads.

C. Engineering and Transportation

Towns sometimes spread along both sides of a river, and at Baghdad, Seville, Fostat and, later, Cairo, there were pontoon bridges. The one at Baghdad was still in existence in the nineteenth century. The pontoons were

linked at both ends by iron chains, and attached at each bank to firmly implanted posts. Almost everywhere these bridges were supplemented by ferry services, which were used to carry men, animals and goods. In Egypt, to avoid permanently blocking the waterway, the bridges across the canals were constructed of movable planks which were taken up at certain times of day.

It would, however, be wrong to think that the bridging of rivers was done only by means of pontoons, which were so easily swept away by flood. On the contrary stone bridges were in existence, some of them constructed during the Moslem period, in Spain, at Harba in Mesopotamia and at Lydda in Palestine. In Susiana, a bridge dating back to the Sassanids was reconstructed in the eleventh century. The arch of this bridge was daring in the length of its span. Baskets and pulleys had to be used to get down into the foundations, and the stonework was bound together with iron and lead.

Great enterprises were carried through and techniques employed which, at least in the eyes of geographers and historians, appear to be quite extraordinary; they do not seem, however, to represent an abrupt departure from traditional artisan practices. The engineer laying the foundations for the port of Acre, for instance, is reported to have asked for large sycamore beams. These he placed side by side in the water so as to form a square tower: they were bound strongly together, with a large opening on one side of the tower. On the tower he then erected a construction of stones and mortar, dividing the work into five sections, which were joined by heavy consolidating braces. The beams sank deeper into the water as the weight on them was increased. When the engineer was sure they were resting on rock bottom, he left the whole thing for a year to settle into a state of maximum stability. Work was then resumed, great attention being paid to the cohesion of all parts. The structure was then joined to the old wall inside the port, and the opening had an arch thrown over it. Military architects were active to equally good effect, whether building citadels in the principal towns (Aleppo, Damascus, Cairo), or castles in Syria, or fortified caravanserais on the Persian highways. In 1183, the Spanish traveller, Ibn Djubair, watched work in progress on the citadel at Cairo. 'The construction workers on this site,' he writes 'and those who carry out all the tasks and prepare the very considerable materials, sawing the marble, for instance, shaping the great stones, and digging out the moat around the fortress wall—a moat that has to be hewn out of the rock with picks, a work assuredly to remain a permanent wonder—these men are Christian prisoners, in incalculable numbers; no other workers can be used.'

Land Transportation

In general, all the Moslem governments were aware that the problem of road conditions and transportation was an essential one. In this connection, we must note the setting up of a regular transport service of snow from Syria and Egypt. The disappearance of the wheeled vehicle from the roads was probably due to two causes. Firstly, there was clearly, in view of the lack of

upkeep of the carriage roads, a real danger that such vehicles would become bogged down in fields or damaged by stones. Secondly, wheeled vehicles were quite unable to hold their own in competition with the camel, whose advent on the transport scene produced a revolution in methods. The east, from 400 to 1300, placed its reliance on the camel, the fastest and most comfortable of animals, and the best adapted to long journeying without water. With reason, travellers sang of its extreme speed and unrivalled endurance.

'The rearing of animals, whether for riding, harness, or meat, is rarely mentioned in geographers' descriptions'—Lévi-Provençal's pronouncement about the Iberian peninsula may be extended to all the Moslem countries. The breeding of horses and camels was, nevertheless, a noble calling for the Bedouin—to be carefully distinguished from the rearing of smaller livestock. Experiments were certainly made in horse-breeding by specialists intent on the production of first-class polo ponies or racing champions. Although the desirable quality in the pack-camel was strength, it was speed that had to be developed by the she-camel for the racecourse. The races were run by camels principally from the Mahara region, in the Oman province of southern Arabia: reputations were made and lost among them as among thoroughbred race-horses. Certain tribes of Arabia had knowledgeable breeders, able, by skilful mating, to develop the most prized attributes, and produce runners of outstanding quality.

The use of carriages may have persisted in the Moslem Far East, since Avicenna (980–1037), the renowned Arab philosopher, considered carriage rides beneficial for his health. But elsewhere it remained exceptional. The absence of mention in Arab authors of this means of locomotion is significant—the more so since their works contain such statements as 'in India there is no way of travelling other than in ox-drawn wagons'. The expatiation of the traveller, Ibn Battuta, on the wagons in use in the Crimea and the sledges employed in the Don region, also serves further to underline the rarity of such items. From time to time, there is evidence in Alexandria and African Tripoli of the use of wheeled vehicles for the transport of large blocks of stone. Wagons were also in occasional use in Syria, where they were pulled by buffalo, and in Spain, for the transport of army baggage. But not until the Mongol period does the wagon convoy become a regular feature of road traffic.

Women and the disabled travelled in palanquins, on the backs of camels or in a kind of covered litter, balanced one on each side of the mount, or on litters of a different sort, with shafts before and behind, and borne by mules or horses.

Horse harness varied with the locality, and its richness with the social rank of the rider. The saddle was approximately flat, with the pommel and rear raised in varying degrees. Islamic horsemen continued to use the stirrup which was invented in central Eurasia. Iron shoeing was customary in regions conquered by the Arabs, but in Arabia before the Hegira 'the nomad never shod his horse with iron but fitted it with leather sandals'.



FIG. 4. Sailing ship (after a miniature, Paris, Bibliothèque nationale).

River Transport

River transport on the Euphrates and on the Nile continued to flourish as in antiquity; it was by waterway that the towns obtained their food supplies, and provincial craftsmen the speedy disposal of their wares. Such water transport remained, however, a costly business, and the tendency was still, as has been remarked, 'for each town to be as far as possible self-sufficient, and the small towns to have their own brickyards, dyeing-works, and oil and soap factories'. (Figs 4 and 5.)

The ancient poets speak of traffic on the Euphrates, where 'great ships, heavily laden, and light feluccas mingled'. On the Tigris in the twelfth century cane-rafts were in use (Petachia of Ratisbon). Commercial transport in Egypt was by way of the Nile and the canals. Movement via these waterways was not notable for speed: it took six days from Alexandria to Cairo, and from eight to fifteen to come down the Nile from Kus or make the return journey. In old Cairo, the retailers had booths on the river-bank itself and cargoes were unloaded at their door.

Sea Transport

Though allusions in the Koran to navigation indicate that the Arabs had a

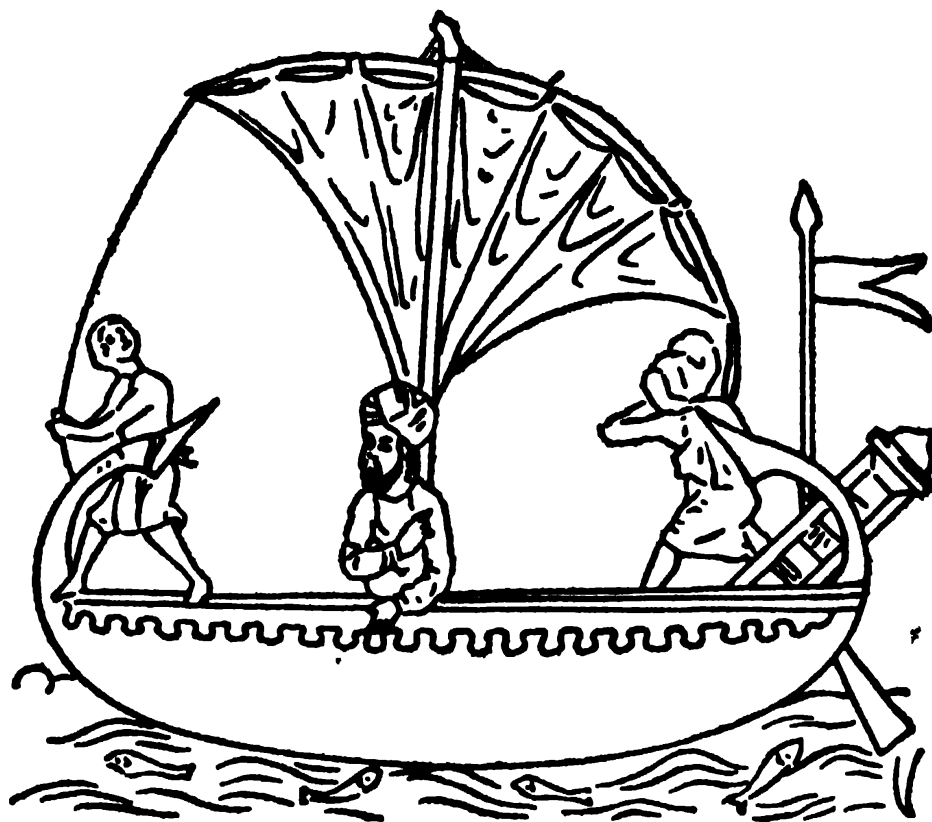


FIG. 5. Ship on the Euphrates, Mesopotamia, 1221 (from a miniature, Paris, Bibliothèque nationale).

certain familiarity with the sea, they had only primitively equipped barges suitable for coastal traffic. The Red Sea was sailed by Abyssinian *boros*, called by the Arabs *aduliya*, after the African port of Adulis.

The historian Tabari in 865 gave an account of boats manned by gipsies, with a crew consisting of the captain, three naphtha-throwers, a carpenter, a joiner, and thirty-nine rowers and fighters; which means that very early there were in existence galley-type vessels, using oars and sails. In the Indian Ocean there were probably also shallow draught seagoing proas with outriggers. Mariners of these regions at all events had at their disposal vessels able to weather storm and monsoon. At the head of the Persian Gulf, near Obolla and Abadan, warning of coastal dangers was given to ships approaching from the sea at night by beacon fires lit on scaffolding. It seems that on the main sea-routes there were what amounted to regular services. There were ships going to the 'pepper country'; others to the 'gold country'; the owners formed what were virtually commercial companies. Many vessels were based on Sirat, whence they proceeded a kind of closed society. 'You should know,' said one of them to some fearful passengers, 'that travellers and merchants are exposed to terrible dangers. Now we, members of the society of captains, have taken our oath never to let a ship be lost before its hour has come. We pilots, when we board a ship, commit to it our lives and destiny.' An old saying ran 'that one

should reach China without perishing on the way is marvel enough: that one should return safe and sound is unheard of'. There was the risk of pirates, notably those from the island of Socotra, for ships coming from the Red Sea and signal towers were built along the coast to alert the population. Rough seas and poor visibility made navigation a matter of immense difficulty in the monsoon season.

The shipbuilders of Shiraf and the Oman coast specialized in vessels made of strips of wood sewn together; (Pl. 5b) the Syrian system of construction was to join together similar pieces by means of nails. The people of Oman cut down coconut-palms, and split them into planks; they then spun coconut fibres into thread and used this for sewing the planks together. The same tree provided foremasts and spars; palm leaves served as sails, and, plaited, as ropes for the rigging. Certain writers held that in the Abyssinian Sea iron nails were not a lasting proposition, because the water ate into them and caused them to corrode and break. For this reason, builders were obliged to use instead filaments soaked in grease and tar, to make sure that the seams would hold.

'The Latin sail,' writes Robert Lopez, 'would seem despite its name to have originated in the East.' The central tiller, known as the stern-post, appears in a miniature of the school of Baghdad, dated 1237. But this may have been an isolated case, for the Spanish traveller Ibn Djubair, returning home in 1184 on a European ship, writes of 'its two tillers, the two legs by which it is steered'. In his account, Marco Polo says: 'The ships of the Persian gulf have only one mast, one sail, and one rudder [i.e. the stern-post], assembled in a particular way.' At the end of the thirteenth century, Genovese builders had come to Baghdad at the behest of the Mongol Sultan Arghum, there to launch two galleys, intended to sever, by the blockade of Aden, Jewish-Egyptian-Indian trade relations.

In the ships on the Red Sea, the captain sat in the prow, 'equipped with numerous appropriate nautical instruments', says Idrisi, but unfortunately he did not say what they were. The captain gave his attention to the depth of water, was constantly on the look-out for reefs, and indicated to the man at the tiller the direction he should follow. Navigation was probably done by means of the quadrant, although the compass is known to have been in use on Moslem ships in the thirteenth century.

There were fishing-boats as well as the commercial fleets, but there would seem to have been little interest in water sport. Along the big rivers and in the sea ports, fishing was a normal calling; the methods were those of net or pot, although certain specialists, of vaunted skill, went in for harpooning tunny fish in the sea. Enforced service continued to be the rule for the personnel of the fleet and recruitment not only of sailors but also of craftsmen of various skills was made for it.

The ships of the Moslem empire were at first all built in Egypt. Raids by Byzantine corsairs, however, rapidly caused the caliphate to develop other

shipyards. Egyptian carpenters were summoned to the yard which was established at Acre and 3,000 Copts sent to Tunis to start another. Tyre, with yards producing racing vessels, was not alone among the towns of the Syrian littoral in this activity; and in Spain, the yards at Tortosa owed its renown to the quality of the wood of the surrounding forests.

D. Crafts and Industries

'Industry is come to mean a feverish activity, a communal performance in which the individual works constantly at one specialized unvarying task.' Industry among the ancient Arabs of the peninsula, as among the nomads, was rudimentary, being limited to the production of the elementary objects of primary necessity in potteries, forges and workshops engaged in weaving, basket work, carpentering, tailoring and ropemaking. There were also professional wheelwrights in the villages; but it is equally true that every peasant could turn to and mend his own tools and equipment.

It was usual for the family to bake its own bread. The oven was set in an aperture hemispherical in shape, faced with brick, on which were superimposed layers of a mixture of clay and salt. This method of construction, which was particularly common in the Maghreb, provided simultaneously conservation of heat by the salt and preservation of the brick structure by the clay.



FIG. 6. Miner's headed pick (after a Persian manuscript, c. 1306-14. University of Edinburgh).

Adept countryfolk put vegetable and animal fibres to manifold uses. They were used in water-hauling, tent-rigging, the tethering of animals and the attachment of packs to the backs of animals. William Marçais declared authoritatively that everybody was something of a ropemaker, and from childhood learned how to plait, twist and re-twist. And shepherds spun wool as they tended their flocks.

Industry thus remained at the level of the village craftsmen. Wool-spinning and the more complex technique involved in tanning, and activities more closely connected with urban life, were confined to the ranks of slaves and freedmen. At Medina, Jews were the smiths, the rope makers and the jewellers. An exception in this respect was the Yemen, whose textiles were renowned before the advent of Islam. Leather from the Yemen, too, headed the list of Arabian exports, and was used to make thongs and cords, sandals, saddles, tents, buckets and even large receptacles. Perfumes were also produced in the region, and probably arms as well. Finally, mention should be made of the merchants of Mecca, now major figures in international trade, at least as intermediaries, in which capacity they must have evolved certain techniques in the sphere of negotiable instruments and currency exchange.

Contact with earlier civilizations, and the accumulation of wealth from the spoils of war, however, led to the rapid emergence of a richer class and so of a clientele for the producers of luxury goods. Such craftsmen, mostly nomads, reappear at the end of our period with the Mongols who 'could calender felt, make straps and ropes, saddles and harness, quivers and arms, and poles for tents and carriage-shafts, and cure skins and furs'.

Egyptian papyri of the seventh and eighth centuries describe the difficulties which the caliphate encountered in maintaining the economic life of the country. 'There might,' writes Rémondon, 'have been a sufficiency of craftsmen active in various fields to meet the needs of Egypt herself.' But it was impossible for the state both to fulfil its function at home and to furnish the continual effort needed in the provision of armaments, in the maintenance of the court, and in the construction work required in areas far beyond its immediate frontiers. The Umayyad caliphs thus attempted the expedient of exercising control over all practising craftsmen. Carpenters, joiners, embroiderers, caulkers and masons were mobilized and transported in gangs to wherever they were needed, or their services were requisitioned on the spot to work for the government. To rule out evasion, lists were compiled of all adult craftsmen, their names, their fathers' names, their birth-places and special skills, but these measures proved a complete failure.

From an examination of ancient Egypt's visual representations, we can see that the tools of the various crafts underwent no development in the latter part of the period. There are Persian miniatures, of a late era, showing the creation of the crafts by Djamshid, a king of antiquity, which show that the instruments of later periods were in no way novel. The equipment of the smith with powerful bellows, and the equipment of the weaver, the tailor and the

turner there depicted show that those rudimentary tools have remained almost unchanged into the present age. Certain miniatures of construction scenes are also significant: one, of the early fourteenth century, displays a headed miner's pick, and, in the border, a centrally-bladed saw. (Figs 6 and 7.) Joiners are depicted using the pulley-block, which is also shown in ancient Egyptian miniatures.

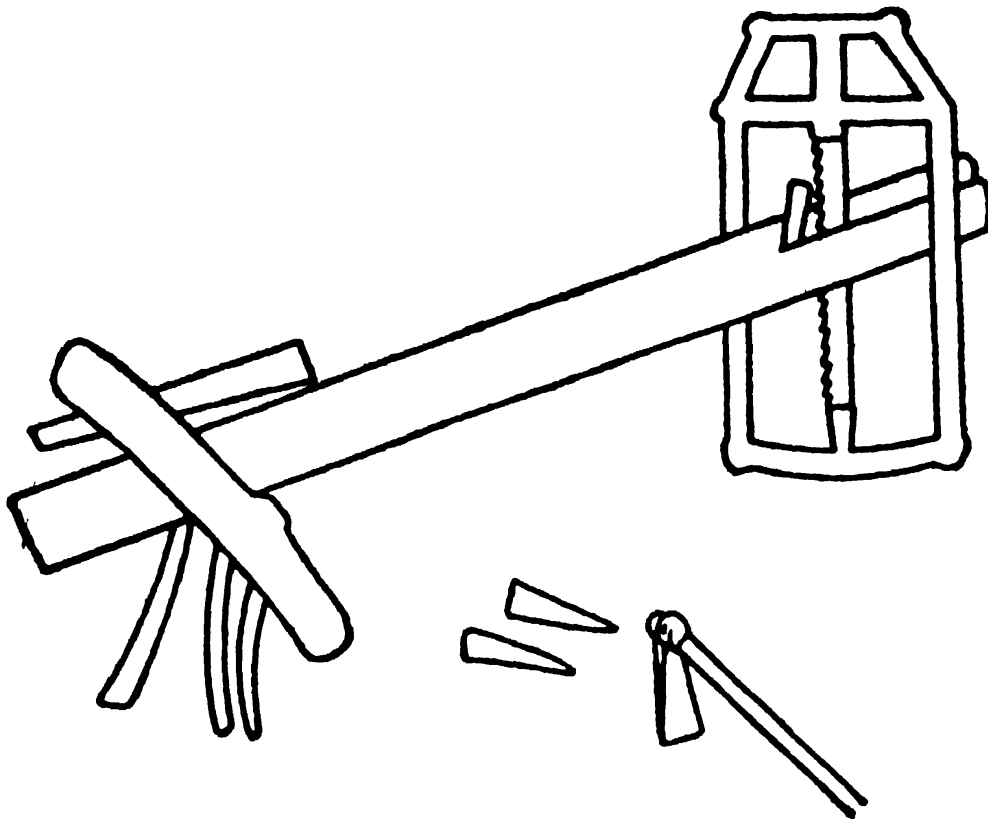


FIG. 7. Centrally bladed saw (after a miniature, Paris, Bibliothèque nationale).

Outstanding among the craftsmen were the wood-turners, who had the remarkable knack of using their big toe to speed up their work. Travellers in the east described innovations for it was evident that work methods had been set for centuries. 'The joiner uses his feet as a clamp to hold the work in position and to guide it; his plane is of the crudest; for a grindstone he uses columns cut in small discs; for working hardwood, he has a plane with a two-inch-wide underside of tempered steel, the weight of the instrument giving it biting power without need for hand-pressure, and its hardness helping to polish the work in the course of shaping.' Wood-turners had a speciality which not long afterwards disappeared—the production of 'delicately fragile carpentry, those wooden grilles, curiously worked and cut, which projected on the street and served as windows'.

At Ramleh, in Palestine, marble was cut with a toothless blade and Mecca

sand. Columns were cut from it lengthwise, as planks from trees, not crosswise.

Wool was combed by hand, and cotton carded by means of a sort of giant bow, one of those 'long instruments resembling ancient harps'. Spinners realized very early that a low-hanging spindle produced the most regular twist. Tailors, too, had soon understood that their work was fastest with short-threaded needles; they used thimbles, usually of the unclosed variety, a sort of wide ring, but the thimble could not be claimed as their invention.

Leather, exported to nearly all countries in the Moslem world, was cured principally, and almost exclusively, in the Yemen, Tunisia, Morocco and Cordova. Cordova produced stamped and embossed leather, and its name still survives in 'cordwain'. Markets grew up in some towns to group the smaller industries which catered to the needs of traveller and pilgrims by providing such necessities as litters, tents and riding and pack saddles.

In the early years of the Islamic era, all writing was done on papyrus, which was produced in several places in lower Egypt, and later in Sicily. The caliphs established a factory for its manufacture in Baghdad. A roll of papyrus was expensive—approximately equal to the yearly rent for a *feddan* (little more than an acre) of arable land, or for a shop. It was therefore used with great economy, perhaps washed clean for service again, or the first writing simply written over transversely. Parchment was also used, but it was still heavier to handle; parchment was scraped clean and used again.

Arab tradition has it that the secrets of paper-making were disclosed to them by a Chinese prisoner, taken in 751 at the battle of Talas. The establishment of the first paper-mill in Baghdad is recorded in 795. The advent of paper, in the ninth century was a major factor in fostering cultural activities and the industry of book production, and the trade in books began. Samarkand long remained pre-eminent in this field. Paper, however, was made at Damascus, Tiberias, Syrian Tripoli, as well as in Baghdad. The Spanish town of Jativa, in Valencia, was known for its manufacture of thick, glossy paper. The early progress in writing material may be seen from these dates: from 719 to 815, the only writing materials seem to have been papyrus and parchment; between 816 and 912, paper is still rare; 913 to 1005 saw paper definitely replacing other and more expensive materials.

Textiles

The textile industry, the glory of ancient Persia and Byzantine Syria, pursued its brilliant way under the Moslems. Arab authors become almost lyrical when they speak of the magnificent luxury products which were poured out by the many workshops for a clientele that was bent on personal adornment and the accumulation of riches. 'In Muslim cities, the rates of exchange in foreign currencies and the arbitrage, were always dependent on stocks of precious articles of clothing, embroidered in gold and silver, which were deposited in special *souks*, called *kaisariya*.' (Massignon) Other writers speak

of the grouping together within the one market of the indispensable craftsmen, the weavers, fullers, dyers, menders, tailors, designers, launderers and pressers. None of these had anything but the most elementary equipment; at a slightly earlier period, for instance, the calenderers were still working with the mallet.

Carpet-making was an activity equally flourishing, and from Sidonius Apollinaris it is known that Persian carpets had their appreciators in Gaul. There is no need to recall the legend of the famous royal carpet that formed part of the loot of the Battle of Ctesiphon, except to say that it was probably richly embroidered. But it is certain that there were in the Sassanian era lock-stitch carpets, and Arab literature speaks of the carpets of Hira. The Chinese pilgrim, Hsuan-tsang, at the beginning of the seventh century, praises the skill of Persian craftsmen, who made fine silk brocade, wool stuffs, and carpets. Geographers extolled the beauty and technical quality of carpets made in the Ispahan region, which were used alongside the sumptuous ones from Armenia. And besides such literary evidence can be set fragments of carpet with Kufic inscriptions, which were unearthed at Fostat. Mention is also made in twelfth-century France of carpets from Baghdad, Persia and Asia Minor.

Technical information which has been available in recent years can be used when dealing with the Middle Ages. The loom was placed almost always vertically. The warp was of undyed wool. The children who did the work crouched on a plank, resting on the rungs of two vertical ladders, which was raised as the work progressed. Between each line of wool-stitches a wool weft-thread was passed. The stitch was made on the right side as with all high-class carpets. The wool was passed with the right hand twice round a warp-thread, tied in a running knot on the warp-thread alongside, and then cut with a small knife which was held in the palm of the same hand. These operations were performed by these children with extraordinary speed and surprising accuracy. That they should not have to waste time studying the design, a worker called out to them in slow sing-song the stitches to be made, the children repeating the words in unison after him as they acted on the instruction.

Drugs and Cosmetics

Oil presses were in use in olive-growing country, but the processing methods were primitive. The quality of the resultant product, however, was very high. Egypt also had its sugar-presses, a considerable factor in the country's economy. Confectioners plied a thriving trade in sweets of every kind, made from sugar or honey, and almond or fruit pastes. They even made sugar dolls, a scandal in the eyes of the orthodox. Their stalls stood in the markets alongside those of syrup and confection makers. The sugar mills were prosperous in Syria, and in southern Persia there was a refining centre.

Druggists formed a select corporation in all the great towns, and Leo the African noted in Cairo 'their fine shops, much ornamented, with very pretty ceilings, and cupboards'. Police were active supervisors of their dealings in the markets in order to prevent fraud. Soap produced in Syria was highly

regarded. One of the few commodities upon which Islamic rules had any effect was vinegar: since wine was forbidden, fresh or dried grapes were turned into vinegar.

The perfume and dyeing industries were always prosperous in all parts of Islam, the techniques used being old ones, which had probably been improved on. Old poems testify to the perfuming of men's beards and hair and describe the perfume containers used. Women of the upper middle class spent much of their time in making up, applying cosmetics and depilatory creams, anointing themselves with perfume, combing out their hair, experimenting with new toilettes and rinsing their tresses in henna. Women who valued their appearance had mirrors of polished bronze, which are mentioned in pre-Islamic poetry. In Cordova, the famous Ziryab, the ninth-century Andalusian Petronius, opened 'a veritable institute of beauty, where were taught the arts of cosmetic application, the removal of superfluous hair, the use of toothpaste and hair-styling'.

Pre-Islamic poems represent the rich woman as apparelled in most precious jewels; with earrings, set with pearls which at times were apparently the size of pigeons' eggs; jewel-encrusted belts, pleasantly jangling anklets and bracelets; and necklaces of amber, coral pearl, topaz and black-and-white streaked glass. Islam changed none of these luxurious tastes. It is curious to read, in an eighth-century Greek papyrus, an order for the requisition of anklets; and the poetry of the Moslem period in no way lags behind its precursors in dwelling on jewels and precious stones. Every city of standing, from Iran to Spain, boasted its skilled goldsmiths.

Mineral Resources

The exploitation of mineral resources in the eastern world was considerable. From writings still extant, we may learn something of gold prospecting procedures (gold was mined in southern Egypt and Arabia). Prospectors went out by night, the idea being to keep a keen look-out all round them for signs of anything glinting in the soil. Any such signs, when detected, were taken as conclusive evidence of the presence of gold. The party would encamp for the night where they had spotted it, and, in the morning, each member would set to work on the patch of land in which he had noticed the luminosity. The earth was carried to a nearby well for washing. Washing was done in wooden buckets, and gold ore extracted. It was then mixed with mercury, and smelted. Idrisi speaks of the abandonment of a silver-mine near Herat because it had become too deep and because of a lack of wood for smelting. Elsewhere, near Balkh, particles of silver in the streams put prospectors on the track of the metal: in other places, miners went as far underground as dependence on flickering torches would allow them. The Iberian silver-mines and those of the Atlas mountains, so rich in the days of classical antiquity, were still being worked in the Middle Ages. Water from underground workings was extracted by hydraulic wheels and then the clay was brought to the surface and washed, a

procedure requiring a large initial outlay of capital, but also highly remunerative; for the crude ore yielded as much as a quarter of its own weight of pure silver.

The cinnabar mines of Almaden in Spain had a workforce of somewhere near a thousand, some cutting the stone down in the pit, others transporting the wood for smelting, making the vessels for melting and refining the mercury, and manning the furnaces.

Other types of mineral deposit contributed to the prosperity of the various provinces: they ranged from precious stones (emeralds in upper Egypt, turquoises in Ferghana, rubies in Badakhshan, and various stones, varieties of cornelian and onyx in particular, in the Yemen and Spain) to the salt of the Hadhramaut, Ispahan, Armenia and north Africa. 'Throughout the greater part of Africa,' writes Leo the African, 'salt is entirely of the mined variety, taken from underground workings like those for marble or gypsum.' The polishing of precious stones was done with emery, which was found in Nubia and Ceylon.

Egypt and the Sudan both had alum, and certain areas of western Egypt, notably the famous desert of Nitro, had natron, which was used for whitening copper, thread, and linen, and also for curing leather. It was also in demand with dyers, glass-makers and goldsmiths; bakers even mixed it in with their dough and meat-cooks used it as a tenderizer.

Special mention must be made of the pearl industry, which was carried on on both sides of the Persian Gulf, in the Arabian Sea, in Ceylon, near Shiraf and the island of Kish, and along the Bahrain coast towards the island of Dahlak. We are indebted to Ibn Battuta for some details of pearl-diving methods. 'The diver attaches a cord to his waist and dives', he says. 'On the bottom, he finds shells embedded in the sand among small stones. He dislodges them with his hand, or a knife brought down with him for the purpose, and collects them in a leather bag slung round his neck. When breath fails, he tugs at the cord, the sign for the man holding it in the boat to pull him up again. Taking off the leather bag, they open up the shells, and cut out with a knife pieces of flesh from inside. On contact with the air these harden and change into pearls, which are then collected, both large and small.'

There were coral reefs lying off the coasts of north Africa and near Sicily and Sardinia. Idrisi gives an account of coral-gathering. 'Coral is a plant which has grown like trees and subsequently petrified deep in the sea between two very high mountains. It is fished with a many-looped hemp tackle; this is moved from high up in the ship; the threads catch the coral branches as they meet them, and the fishermen then draw up the tackle and pick out from it the very considerable quantity of coral.'

Pottery, Ceramics and Glass

As in all civilizations, great use was made of pottery, for cooking, lighting, washing, etc. In the bazaar in Cairo, according to a Persian writer of the

eleventh century, grocers, druggists and ironmongers provided the glasses, the faience vessels and the paper to hold or wrap what they sold. It was a custom that persisted. 'Daily,' a fifteenth-century Arab historian informs us, 'there is thrown on to the refuse heaps and waste piles waste to a value of some thousand dinars—the discarded remains of the red-baked clay in which milk-sellers put their milk, cheese-sellers their cheese, and the poor the rations they eat on the spot in the cook-shops.'

Ceramics of finer quality were also produced, and firing workshops in general were very active throughout almost the entire Moslem world, the potteries of Persia, Mesopotamia, Egypt and Syria rivalling the faience workshops of Tunis and Cordova. The glazed faience tiles of Málaga, known as *azulejos*, are still famous. This description of a modern potter's wheel is probably applicable to all those of the Middle Ages: 'The potter's wheel consists of a sloping tray over which is a wooden axis supporting a further piece of wood in the shape of a disc, the whole resting on a cross-bar. The lower wheel is turned by the craftsman with his foot, an action requiring no great expenditure of energy; in consequence of its inclination, the tray is carried round and over by its own weight.'

The same Persian traveller conveys an idea of the quality of Egyptian faience at the time: 'Egypt produces faience of every kind; so fine and transparent that a hand placed against the outside of a vase may be seen from inside. Bowls, cups, plates, and other utensils are made. They are decorated with colours that change with the position of the vessel.' Studies of the wide variety of eastern ceramics and the techniques employed in their manufacture are legion, so that only a list of them is called for here. We must distinguish between ceramic pieces that are carved and glazed, and those painted in lustre. Classifications have been made as follows: clay objects lead-glazed; clay objects glazed in metallic-lustre with copper, and perhaps, pewter and silver; limestone-clay faience over-laid with variously coloured alkaline earths; and unglazed fired clay earthenware, under which heading come the Alcarrazas or water-coolers.

Thousands of ceramic pieces and fragments are extant, of varying artistic quality, but in their technical perfection bespeaking workers versed in all the secrets of their craft. Special mention should be made of the Persian workshops of Kashan, for a director of these—one of a well-known family whose members have left signed wall-tiles—was responsible for a late thirteenth-century treatise on ceramics in Persian, since edited and published in German.² Each region had its traditions in matters of equipment, the use of the wheel, and chemical composition, but a detailed account of this craft would entail too great an encroachment on our space, especially as pottery was probably a domestic craft long before it became an industry.

Attention has been drawn by Lévi-Provençal to the discovery effected by a ninth-century Cordovan, Abbas ibn Firmas, who 'using instruments of his own devising, discovered the secret of making crystal, and had his knowledge put

to practical effect in the glass-making furnaces of the Andalusian capital. He had made a representation of the sky in glass, which he was able at will to make clear or cloudy, with lightning and the noise of thunder at the press of a finger'.

E. Currency and Banking

The Sassanian monetary system seems to have been bimetallic, based on gold and silver, with no fixed rate of exchange established between them. Gold coinage was the rarer, and, at the end of the ninth century, the basic currency was gold. The Moslem empire also had numerous workshops minting copper coins.

'Banking activity in old Persia remained limited, the banks making effective entry into the arena only in cases of bad harvest or at times of tax payment. This situation did not prevent the state from taking an increasing interest in the operations of establishments offering credit and forcing them to submit to a stringently administered control.' (Ghirshman) The Sassanian banks, run by Iranians or Jews, had an extremely well-developed system of monetary transfer by written document.

The risks incurred were probably cited by the merchants of pre-Islam Mecca as a reason for exacting usury. The Koran condemned such practices absolutely, which might well have placed a serious obstacle in the way of commercial development. The law thus laid down, however, with its absolute prohibition of the charging of interest, was in general circumvented. The 'bill of exchange', for instance, was widely current despite the law's theoretical disapproval of it. With great rapidity, probably under Iranian influence, 'to avoid having to transport coin as legal tender, as dangerous as it was beset with practical difficulty, the bankers took to the use of bills of exchange, letters of credit, and promissory notes, often drawn up as to be, in effect, cheques'. (Massignon.)

There were Moslem bankers in the Middle Ages, but those engaged in such activities were for the most part Jews or Zoroastrians. Jewish financiers of the early tenth century were even accorded the title of 'bankers to the Court', and might advance state money against security of revenue from the provinces. 'Thus, although there was nothing corresponding to the modern system of credit banks, it was possible, on production of a document drawn up in one place to draw money in another under the same government.' In the middle of the eleventh century, Basra would seem to have lost its former prosperity; nevertheless, anyone who had assets, according to one traveller, deposited them with a changer or banker who handed over a receipt. Any purchase was then made by means of a draft on the banker, who honoured it when presented by the vendor. Such drafts on bankers were the merchants' exclusive currency; but this was as far as things went. The only attempt, made by the Mongols in Persia in the last years of the thirteenth century, to introduce a paper currency,

in imitation of the practice in China, met with lively Moslem opposition and failed.

Mention must be made of the existence in Damascus, at about the same period, of embryonic insurance concerns who covered the risks of porcelain breakage. The *wakf* institutions also facilitated the undertaking of commercial enterprises and the provision of marriage trousseaus for young girls without means.

F. Armaments

This somewhat summary account cannot be closed without a word about armaments. The Sassanids employed heavy armoured cavalry and light cavalry armed with bows and elephants. Elephants disappeared from oriental armies until the end of the tenth century, when their use was resumed following a fashion prevailing in the far eastern parts of the caliphate. Egyptian-Greek papyri speak of armoured cavalry and infantry, and of the invading Arab army's being transported in convoys attended by provision ships, and others containing teams of smiths ready to repair damaged equipment.

Head protection was provided by a helmet of leather or metal—in the latter case sometimes topped by a crest—the whole often being completed by a hood of mail. Chain-mail armour was soon being used for all purposes—for hauberks, habergeons, or simply for breast-plates, which were worn with greaves over arm and leg. This defensive mail came in small pieces of metal, or in horn, or skin; splinters of horn were linked with gut, or hollowed out and inserted one into the other. Fine chain-mail, covered with clothes stuffed with silk and resin, was also used. The horse had its head protected by a chamfron, its neck and withers by small plates held by rings and chains, the middle of the chest being similarly covered. Shields were of various kinds, mostly of the buckler type, made of leather and wholly or partly covered with metal. Early in their history, the Arabs constructed shelters of skin-covered palm branches for their protection in sieges.

Weapons most in use by the cavalry were the lance, the sword, and the saddle-bow axe, which was sometimes double-edged; and Joinville writes of 'a Saracen wielding a Danish carpenter's axe'. When at ease, the knight carried his lance on his shoulder, and his sword probably hung from a cross-belt. Lance-points were of horn before metal was introduced. The sabre might be a straight blade or a curved scimitar—'a curved blade,' as Volney says, 'with the sharp edge inwards, sliding down with the movement of the arm and then continuing the motion of itself'. Throwing weapons were mostly javelins, with barbed or double points.

A treatise on arms, from the pen of a contemporary of Saladin, translated by Claude Cahen and published in 1948, gives certain valuable information about the making of steel. There was, apparently, iron in the Maghreb, in Spain, in some parts of Asia Minor and in India and China. The iron from India and

China was of unequalled quality, that from the Maghreb and Spain, mined at Bougie and Seville, somewhat inferior. Steel was of variable composition, the means of production varying accordingly. Soft iron would be taken—the best sort being found in the heads of old nails—placed in a vat, and cleansed thoroughly with salt and water. Myrobalan was then mixed with it, and the mixture placed in a melting-pot, and sprinkled with powdered magnesium. A

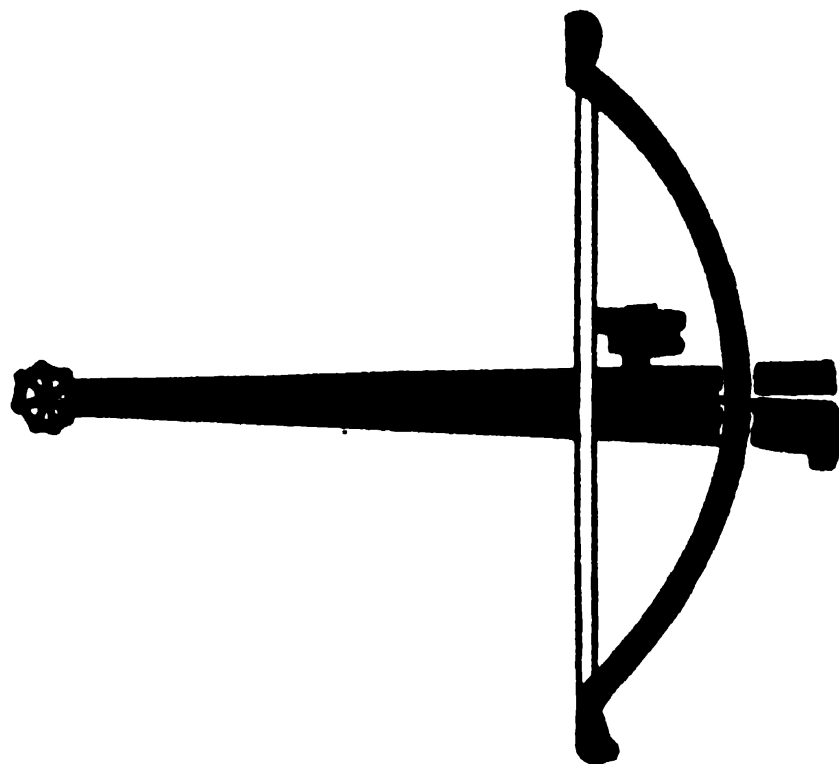


FIG. 8. Cross-bow to shoot vase of naphtha (after a drawing in the Bodleian Library, Oxford University).

fierce fire was kept under it, until it all melted and could be collected in a ladle, the whole process taking several days. Then a great deal of hammering and filing produced a sabre. Fine tempering involved secret processes, some of them involving chemical compounds of a quite extraordinary kind. The sabre was heated until it was red-hot and the appropriate liquid poured over it; when the iron was treated, it was cooled, and covered to protect it from dust.

The Arabs of the Moslem period had, in addition to cavalry, detachments of slingers and formidable corps of bowmen. They had long realized the practical and demoralizing advantages of firing in salvos. Almost every town had its archery practice-ground. Archery competitions in Egypt were, from the early days of the Mameluke régime, exacting trials of skill. In a context for mounted bowmen, for instance, the contestants were required to draw at full gallop and hit a gold or silver gourd containing a pigeon and hung from the head of a flagstaff.

The bow was in time replaced by a more deadly weapon, the light cross-bow, which is mentioned from the ninth century onwards. This weapon, easily portable, required only one man to handle it; but it was quite early accompanied by a heavier version, requiring several men, and hurling arrows *en masse* or perhaps 'Greek fire'. (Figs 8 and 9.)

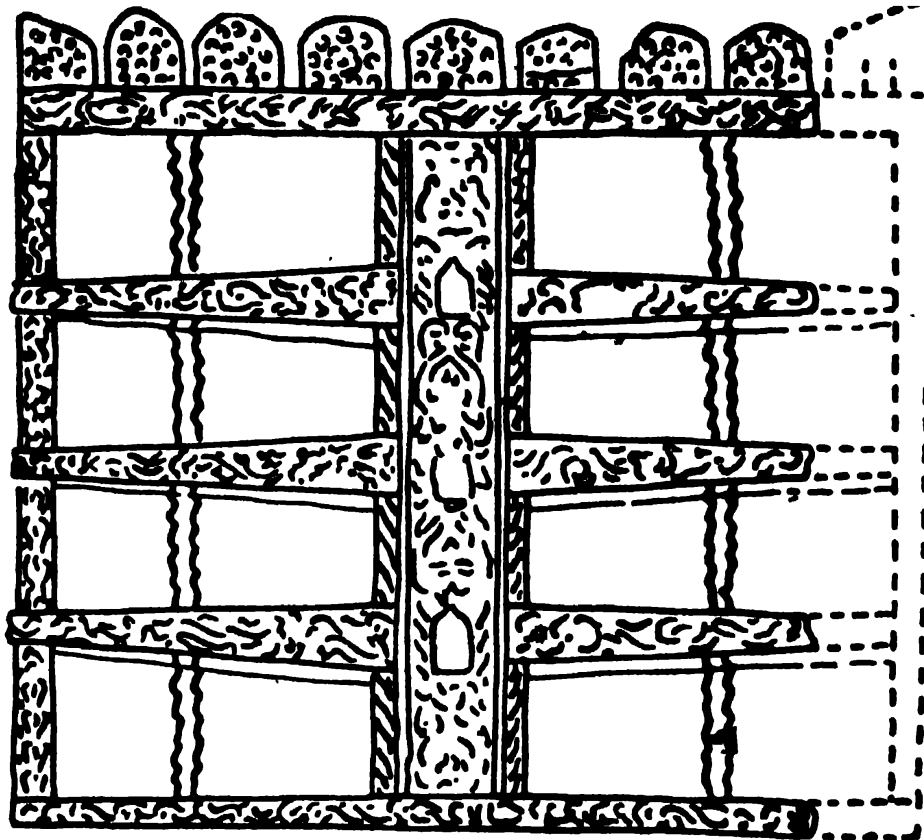


FIG. 9. Triple cross-bow (after a manuscript in the Bodleian Library, Oxford University).

The science of ballistics was developed under the Sassanids, and siege-machines date from early times. Arab names for the machines are numerous and it is sometimes difficult to allot them the right European counterpart. Translators have variously rendered them as battering-rams, ballistas, catapults, mobile towers, mangonels, stone-throwers, perriers and trebuchets. (Joinville makes the point that the instruments used by the Saracens were superior to others.) These machines, certain of them very heavy and difficult to handle, hurled enormous blocks of stone or incendiary matter into the enemy camp. The incendiary matter was supplied by a corps specially detailed for the purpose. Some of the machines were on wheels; it is recorded that, at the siege of Acre, at the end of the thirteenth century, the oxen available were not strong enough to drag one of these machines into position. (Fig. 10.) It seems clear, that, at all events, over the period of the Crusades, the Moslems enjoyed a

superiority in the use of them, the effective range of their missiles being something over 300 yards.

It was general practice, in the course of a siege, for a detachment of sappers to carry out sapping operations, piling up wood in underground galleries and setting fire to it—a way of making the walls collapse which is as old as history itself. The miners of Aleppo were renowned for their resource in such operations. To prevent enemy use of certain ways of entry, chevaux de frise or caltrops were set up and carefully camouflaged.

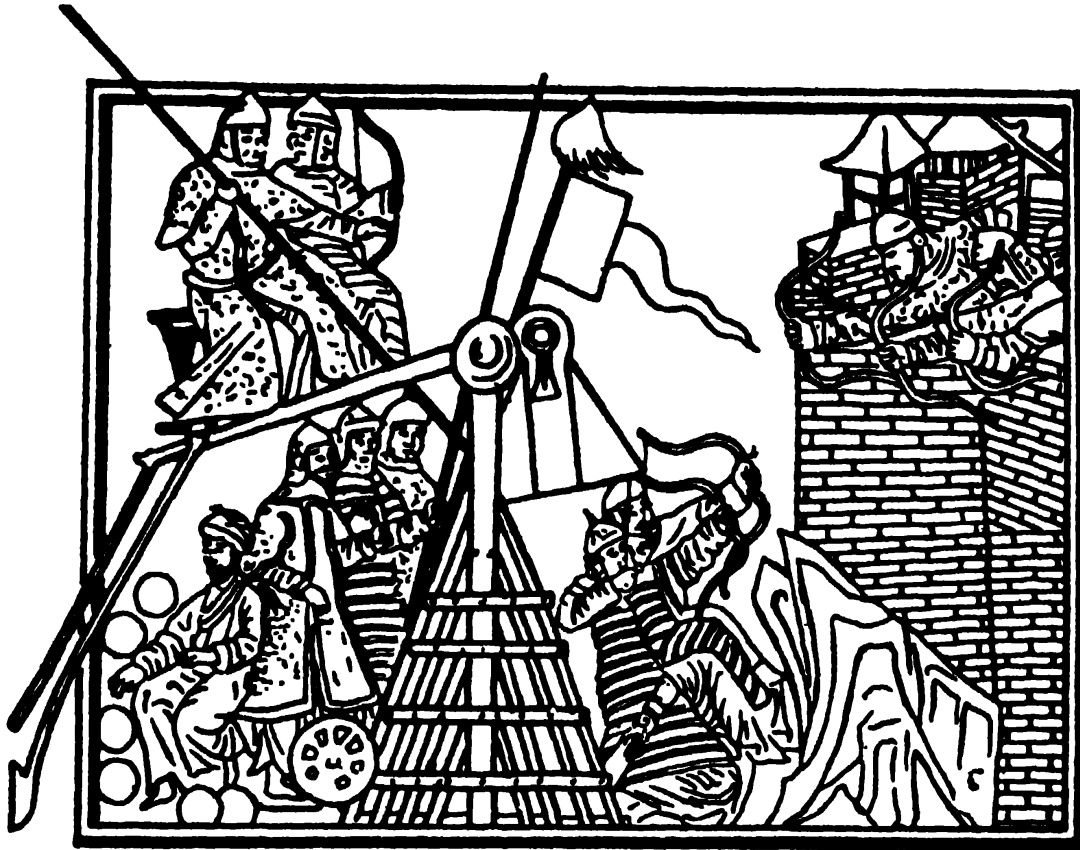


FIG. 10. Siege of Arak by the troops of Ghazna Mahmud. (Persian miniature, c. 1314-16, University of Edinburgh Library).

Procopius, in a much-quoted passage, tells of the Persian use of burning oil, also mentioned earlier by Ammianus Marcellinus. The Persians would also hurl at the enemy stronghold vases full of sulphur, bitumen, and naphtha. The first mention in the annals of Islam of the use of naphtha, is in connection with a raid in India in 777, when it was used simply as an incendiary substance. In the siege of Herakha, however, in 803, projectiles, consisting of balls of stone which had been wrapped round in linen and soaked in burning naphtha, were fired from mangonels on to the ramparts. The idea was that the fire clung to the stones and caused them to explode. After this, the armies of the caliphate had special detachments of naphtha throwers and they were carried also in

Moslem ships. The precautions taken by the handlers included covering the inflammable material with freshly drawn skins, and the wearing by the naphtha throwers of clothes impregnated with French chalk.

The naphtha-filled glass grenade made its appearance about 934—at least, that year certainly saw the invention of the incendiary javelin, and the grenade was certainly in use only a year or two later. In the course of the tenth century, there was a sinister modification in the armament of Moslem ships: the addition of copper tubes that threw out a mixture of nitre and sulphur. The Arabs did, in fact, eventually (certainly by the middle of the ninth century) contrive by means of chemicals a means of protecting their ships against the ‘Greek fire’, but the formula that they used remains unknown. The manuals give quite a number of formulae for the manufacture of incendiary substances with a naphtha base. They mention naphtha thrown by arrows, or by mangonels, and naphtha that continued burning on water to set fire to enemy ships. In the museums are to be found quantities of earthenware grenade, shaped for easy grasping in the hand, with raised patterning all over them to prevent their slipping prematurely from the thrower’s grip. The last historian of Greek fire, Maurice Mercier, is prepared to admit that, in the course of the thirteenth century, use began to be made of powder-filled grenades, known as ‘Syrian jugs’, which had considerable explosive force.

It has not been possible to ascertain whether the machines continued to be used uninterrupted throughout the Mongol period; in the thirteenth century, at all events, all sources speak of their use by Mongol troops for fire-throwing. And there is the impressive description of Joinville: ‘The fashion of the Greek fire was such that it came front-wise like a barrel of verjuice, and the tail of fire issuing from it was the length of a large lance. It came with a noise as of thunder from heaven; it had the seeming of a dragon flying through the air.’

Strategy and tactics would seem still to have been at an elementary level; the Arab conquest, notably, owed nothing apparently to any preliminary planning. It was the Mongol army, in the thirteenth century, which was characterized by ‘the organization of campaigns, and the far-reaching use of an information corps, the co-ordination of movement being frequently achieved over distances of thousands of kilometres’. (Sinor)

4. EUROPE AND BYZANTIUM

Though it never experienced the heightened tempo of technical development that characterizes our own, the medieval period saw a host of minor advances which together represent an appreciable contribution. It is difficult, however, to present any detailed picture which places things exactly in space and time. Documentation is inadequate. Extant texts only rarely record success or failure in technical matters: even the terminology employed is imprecise. Surviving artifacts of the period, naturally enough, are few. And to these few it is difficult, of not impossible, to assign a definite date or place of origin. In

this respect the jewels, arms, and utensils found in the tombs of the early Middle Ages are a fortunate exception. For the most part, we find we must rely on visual representations: miniatures, bas-reliefs, seals, etc. But even here the artists' lack of skill, or of interest in representational accuracy, and their tendency simply to copy time-honoured models, often entails disappointment. A history of the mechanical techniques of the period must thus only too often resolve itself into the establishment of a few landmarks and the formulation of problems. Hypotheses must, of unfortunate necessity, play a very great part in this chapter.

A. Agricultural Techniques

In matters of agriculture the Romans were already knowledgeable. But their ideas were nevertheless applicable only to a particular type of country—the Mediterranean. They preferred to work light soil that could be tilled with the swing-plough. They planted on a two-yearly rotation basis, allowing the ground every second year the rest necessitated by the lack of fertilizer. Their agronomists were alive to the advantages of a three-yearly rotation, but the over-dry Mediterranean summers prevented spring sowings from maturing. This was a serious deficiency, as it limited the possibilities of stockrearing, and hence the supply of animal manure, which completed the vicious circle.

In this sphere, as indeed in all spheres, the early Middle Ages, dogged by invasions and a general intellectual decline, were probably a period of regression. The Mediterranean countries were later, in the eleventh century, to make a fresh discovery of the lost aspects of the Roman heritage. But for medieval Europe as a whole, as its orbit widened to embrace Germany, and the Scandinavian and Slav countries which were never part of Romania, and as its agriculturalists had to deal with heavier soils and damper climates—with a differently distributed humidity—the great problem was the development of an altogether different agricultural system. The gradual evolution of such a system, adapted to northern European conditions, is seen to be, in fact, one of the basic factors essential to the birth of a European civilization. (Pls 7 and 8.)

Improved husbandry. Progress was gradual only, and the road it took can unfortunately be charted only in parts. The first manifestations were in areas particularly favoured by nature, and especially in the great plains between the Seine and the Meuse. Here the abbeys which had been established in the Merovingian period attended to the exploitation of the lands with a diligence witnessed to by such documents as the 'Polyptic', or inventory, of the abbey of St Germain-des-Prés (close to Paris), which was set down by the abbot Irminon in about 815. The same concern is evinced by the author (perhaps Charlemagne) of the *Capitulaire de villis* (i.e. 'Capitulary about Estates'). These first advances suffered a setback with the Norman and Hungarian invasions; but matters were taken in hand again in the religious communities. The principal agronomists of the twelfth century were men like Suger, abbot of

St-Denis, and the abbots of Cluny. Writings on agricultural economy made a renewed appearance, several of which were produced in England—for example, the *Dite de hosebondrie* of Walter de Henley (c. 1250). From northern Italy came the *Ruralium commodorum opus*, drawn up about 1305 by the Bolognese Pietro de Crescenzi. The question arises as to what degree of influence such treatises in fact exercised. Certainly some of the enlightened landowners drew inspiration from them. But we do not know how far their tenants in fact carried out their instructions, and it is unlikely that their ideas spread much further. There were still, in the thirteenth century, areas of archaism in which agricultural methods remained as rudimentary as ten centuries before.

The improved plough. It seems that the gradual progress in agriculture centred round two series of improvements, between which there existed in fact a close connection—improvements in tools, and improvements in the rotation of crops. The first advances were in hand-tools, through the development of a class of rural artisans, which put a greater number of metal implements at the disposal of the peasantry. But the main concern was the plough. The old Mediterranean swing-plough, a sort of wooden stake with a point hardened by fire, or tipped with iron, was an implement for light, dry soil that had only to be scratched on the surface. Heavier ground had to be turned up with spade and hoe. It will be readily understood, then, how great a step forward was taken with the introduction of a new plough—on wheels, and complete with ploughshare and mould-board. The wheels provided something to lean on, so that pressure could be put on the plough without undue dragging on the animals pulling it. With a coulter (a vertical blade) going before, the mould-board (at that time a flat wooden plank) dug into the ground and turned it over, ploughing in whatever was growing, together with manure. Deep ploughing was now possible; hence the cultivation of heavy soil and the grubbing up of deep-rooted plants in clearance work. (Pl. 9a, Fig. 11.)

As was to be expected, these advances were made in the regions most in need of them. An iron ploughshare has been found in layers dating from the seventh and eighth centuries in the course of excavations made near the old Russian town of Ladoga. The wheeled plough would seem to have been brought by the Franks into northern Gaul from Germany; the mould-board was invented later in Flanders. The first pictorial evidence of ploughs thus equipped is found in England in the eighth century; in the eleventh, the Bayeux tapestry furnishes a very fine example. The limitations of our documentation here are, of course, all too evident. Moreover, the swing-plough was still in use long after this, even in Nordic countries, alongside the wheeled plough. The new plough was very heavy, and hence expensive, and it required four, eight, or sometimes even ten oxen to pull it. Only the lords and the richest peasants could afford it; to clear new land, farmers must often have combined their teams.

The changing shape of the fields. One great advance was the change-over, between the eleventh and thirteenth centuries, from two to three ploughings for winter cereals. This became possible with the introduction of the new plough, with which it was no longer necessary to plough in squares, as with the old swing-plough. The new method resulted also in a change in the shape of the fields. Ploughing in a square pattern had fostered the division of land into squares, more or less regular. When, however, the peasant came to plough along the one line, he was principally concerned to avoid the too frequent turning of his cumbersome team; hence the development of the landscape of narrow parallel strips that characterizes the great plains of northern Europe.

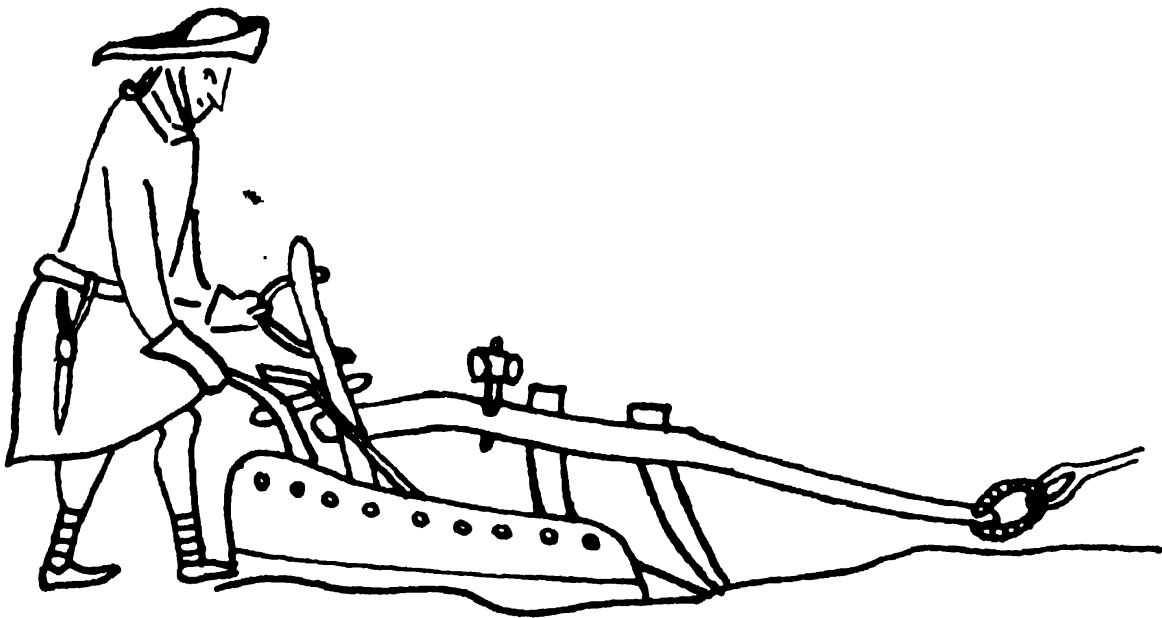


FIG. 11. Heavy plough, c. 1340. This plough required a strong team (after a manuscript, British Museum).

This relation, however, between narrow strips and wheeled plough, logical as it appears, must not be taken too systematically. Both elements do not always coincide, and there are historians to deny the relation. At any rate, square fields continued to be prevalent in the drier regions of the Mediterranean, where the new plough would seldom have been very effective, and in fact was seldom used.

The harrow and the scythe. Still further tools were invented which increased the efficiency of peasant labour: the harrow; with which to cover the seed; the long scythe, only slowly ousting the sickle, which still had the advantage of cutting the corn higher, thus facilitating the drying of the sheaves and leaving the animals more stubble after harvesting; and the flail for threshing. Nor must we forget the development of the mill. (Pl. 9b.)

The rotation of crops. Closely connected with this general progress is the improvement in systems of cultivation. Except for the two-yearly rotation, cultivation was almost entirely limited to the temporary and more or less random exploitation of stretches of downland or burnt clearings in the wooded regions; and these methods were long to persist. To introduce a measure of planning into such practice was in itself an advance: it must have been among the aims of those administering big ecclesiastical estates from the seventh century onwards. But the chief innovation was the introduction into the seasonal schedule of spring cereals, and in particular oats. This crop makes its appearance during the Carolingian period, in the great monastic and royal domains of northern Gaul. It would be premature to speak yet of a regular three-yearly rotation; all we have at this juncture is a complementary sowing, with winter cereals retaining their greater importance. The new rotation was systematically developed only gradually and, as late as the end of the thirteenth century, it was still far from general practice over the area in which it was later to predominate.

Productivity increases. The advantages of the system are evident. Productivity was increased; two-thirds of the land under the plough was simultaneously used, instead of one-half as hitherto. The peasant's weather risk was better spread; but, most important of all, the range of crops grown was extended. Barley proved particularly adaptable. Oats, long regarded as a weed, were cultivated in the Celtic, Germanic and Slav countries. Rye, doubtless brought from Asia Minor via the Balkans, was favoured for its exceptional hardness. Buckwheat, with its suitability for poor soil, was perhaps introduced in the thirteenth century by the Mongols.

Thus more and more varied food became available for man—and for beast. Horse-rearing, in particular, profited in a most decisive way from the increased oat production. Here lay the economic basis of the feudal cavalry. But the horse was also used for agricultural work. Using its greater speed, the peasant could make much more intensive use of plough and harrow. Not that the ox's placid, regular gait altogether went out of favour; the ox was, moreover, a much less expensive animal to feed—three times less, according to an English treatise of the thirteenth century. Thus the two animals were used concurrently.

Land reclamation. To this overall view of progress should be appended some mention of individual advances. In maritime Flanders we have the most striking example of the reclaiming of arable land from marsh, and the conservation of country liable to flooding, by the construction of dikes and canals. The creation of these *polders* (the term is first used in the twelfth century) was in part due to the initiative of the counts, but the inhabitants formed themselves into *wateringues* (draining syndicates) who undertook responsibility for their upkeep. From the thirteenth century onwards, the windmill enabled them to pump out the water. This example was followed in the English Wash

and in eastern Europe. No less important was the draining of land that had been previously covered with malaria-ridden swamps. One remarkable example was Tuscany where the whole pattern of rural settlement, towns, and roads changed during the Middle Ages, as it became possible to move from the hills to the low lands.

Irrigation. By the opposite procedure, irrigation, dry land was brought into profitable use. The Romans had already practised irrigation, particularly in Spain where *huertas*, such as those of Valencia, were restored to cultivation under Arab rule. The device was copied in various places. The most remarkable instance was undoubtedly the *Naviglio grande* (Grand Canal) in Lombardy, built between 1179 and 1258, by means of which the waters of Lake Maggiore were spread over some 88,000 acres.

Specialization begins. A notable feature of this agriculture is its lack of specialization. Difficulties of transport induced each region to supply all it needed as far as possible for itself. The first signs of a few regional specializations are none the less here and there apparent. From about the middle of the twelfth century, Guienne, taking advantage of her links with England through political connection and Atlantic trade interests, began to develop her vineyards: for England was a good market and, moreover, had cereals to sell. The Paris basin, and later Burgundy also found an outlet for their wines, via the inland waterways. The other instances of specialization are in raw materials: woad (or pastel), a basic dye ingredient, in Picardy and Thuringia, and later around Toulouse; flax and hemp in several regions.

Manure. This progress was considerable, but it was limited. The two obstacles, not unconnected, facing the European peasantry were the shortage of manure and the inadequacy of stock-breeding. The Romans had used animal manure and vegetable manure (vetch, beans, etc., dug into the ground), but in small quantities and on particularly fertile soil. They knew how to apply marl to increase the lime content of the soil. These processes were taken over and extended in European agriculture; but the quantity of manure available failed to suffice for the needs of the soil, since the rearing of animals, and particularly of the larger ones, was itself insufficiently developed.

Stock-rearing. Medieval stock-rearing certainly had achieved something. Horse-rearing, as a result of the introduction of oats, and the adoption of methods of rearing and selective breeding learned from the Arab world, made considerable progress. Where wool was concerned, England took the lead, with its short-coated, fine-haired sheep bred on the scanty pastures of the Welsh and Scottish borders, and the long-haired variety from the richer country of the Cotswolds and Lincolnshire; and, in fourteenth-century Spain, by cross-breeding with north African stock, the merino was developed. But progress was lacking in the rearing of larger animals, which was restricted by feeding problems. There were very few hay-fields, and apart from these there

was only the communal pasturage, consisting of heath, woodland, fallow ground, and stubble-fields.

Insufficient manure meant poor harvest. Factual information here is scanty, but a few figures can be cited: in the twelfth century, the abbots of Cluny counted on a yield of from 4-6 to 1; in the thirteenth century, English treatises put the average yield of wheat at 5 to 1, and of rye 7 to 1, figures which were sometimes exceeded but in many regions never attained, as we may guess.

Fallow land. The practice of letting land lie fallow, regularly putting half or a third of the land out of cultivation, was in these circumstances a regrettable necessity. At the end of the thirteenth century a few fortunate areas (as in Flanders) were able to discontinue the practice, but they were the exceptions.

It may well have been that attempts to increase production in the face of these practical difficulties led, at least in some regions, to an impoverishment of the soil. For instance, there was a noticeable tendency to sow newly cleared land with wheat, an exacting crop, which had then to be replaced by rye. Even the most fertile soils, if allowed insufficient fallow periods, might in the end have lost some of their quality.

Communal agriculture. Socially, these economic inadequacies of the agricultural system were to some degree made good by the communal character of the system, which was favourable to the 'small man'. In many regions, the

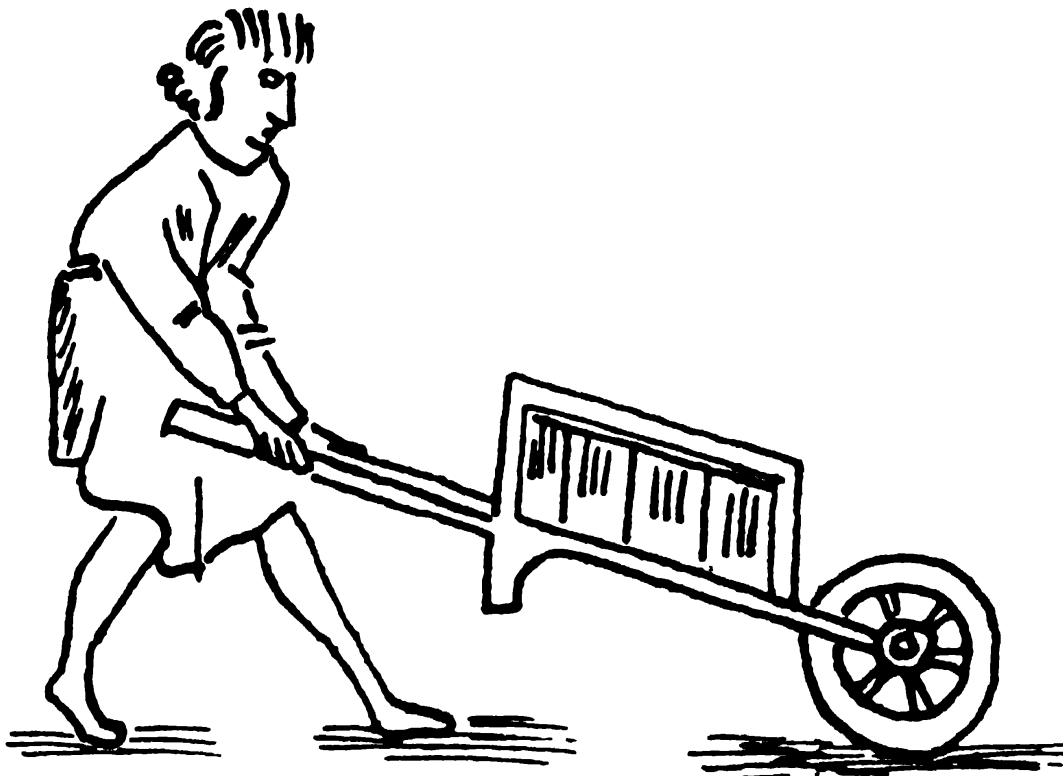


FIG. 12. Wheelbarrow, end of the thirteenth century. One-wheeled model (from the Latin manuscript 6769, Paris, Bibliothèque nationale).

land of the village as a whole was for rotation purposes divided into large sections, in which the portion of each individual was determined by general rule. Clearance work was often organized on a collective basis. The right of gleaning allowed the poorest to take from the harvest fields any overlooked ears and high-cut stubble. It was always possible for the village animals to graze on the stubble fields. Though not without some struggle against the landlords, the rights of usufruct (the picking and gathering of dead wood) were retained as communal. Behind these practices lay the idea that the fruits of the earth should go to him who has laboured to produce them, but that 'the earth empty of fruits is no longer liable to individual appropriation'. It was a 'rudimentary communism', as Jaurès called it, which mitigated the harshness of social inequality. From the thirteenth century onwards, the 'agricultural revolution' was to resolve the technical problems (Fig. 12) then still looming, but, in doing so, to deprive the poor of this time-honoured protection.

B. The Harnessing of Power

The Greeks, and after them the Romans—so long as their world supremacy assured its continuity—had had at their disposal a cheap and plentiful supply of manual labour—slaves—which relieved them of any necessity to seek further sources of energy. The decline of slavery in Europe was, in this respect, of major significance.

It was a gradual decline, and the disappearance was never total. Christianity laid stress on the human dignity of the slave, and praised his enfranchisement as a 'good work', but it in no way regarded it as obligatory; and the slave himself was exhorted to obey his master, good or otherwise. What effect the invasions, and the attendant confusion, had on the slaves' condition, or on their number, it is difficult to say. Many of them doubtless seized the opportunity for revolt and freedom. On the other hand, among other consequences of the fighting was the enslavement of many of the defeated, and the barbarian states established on the soil of Romania continued the slave system.

The waning of slavery. But this custom of enslaving the vanquished did, nevertheless, wane gradually. When Charlemagne conquered northern Germany, he understood full well the advantages he derived from the forced collective conversion of the Saxons; the shattering of their former traditions, which were replaced by a new culture resembling that of their conquerors, within the convenient ordering framework of the clergy. But it was forbidden to take a Christian into slavery. Whatever our opinion today of his method of proselytization, and however excessive the violence that attended it, it represented, relatively, progress.

In the states thenceforth deprived of a regular and plentiful supply of slaves, the continued large-scale working of estates by slave-labour, declining as this

had been since the latter days of the Roman Empire, now became impossible. The majority of the slaves, settled on tenure land, came gradually to occupy a position similar to that of tenants proper. Then, in the political dissolution which followed the end of the Carolingian era, a clear line ceased to be drawn between free man and slave as participants in public affairs. It is true that the blurring of the line was made easier by the fact that while the condition of slaves improved, that of the small independent farmer generally worsened, in western Europe at least.³ Liberty did not by any means become thereby the prerogative of the majority of the population. But serfdom, that institution as to the origins and spread of which historians are not yet in agreement, was a different thing from slavery: the serf is dependent on a lord, not on a master; relations between the latter and himself are objectified by custom; the conditions according to which he can be called on to supply manual labour are on a different basis.

The Slavs. Slavery was not yet, of course, a thing of the past. The high price commanded by slaves in the Arab world gave rise to a traffic in them quite unhindered by Christian scruples. The victims were Slavs (whose name was later to replace the Latin *servus* as the designation of this social category). Captured along the Elbe frontiers, or in the Balkans, they were driven through to Spain, or herded on to ships in such ports as Venice. But they were not kept on Christian territory, since attractive prices were not to be had there. Later, in the thirteenth century, there grew up a slave-trade between certain of the Mediterranean countries, such as Catalonia, which employed slaves, chiefly as domestic servants. But in Europe as a whole, slavery had by this time ceased to be the mainspring of production.

The better use of animals. Its resources of man-power thus restricted, medieval Europe learned to make better use of animals, and of the natural forces of wind and water. A whole series of improvements helped to ensure the more effective use of a team of horses: shoeing with iron gave the animals a firmer grip and economized their strength; the use of saddle, stirrups, double bit, and curb chain furthered the development of horsemanship; and most important innovation of all, the old type of harness, with its thongs constricting the animal's chest as its effort increased, was replaced by the modern collar which shifted the weight on to the animal's shoulders. The use of side reins meant that the strength of several animals could be combined by harnessing one behind another. Loads of more than half a ton now became practical haulage propositions. (Pl. 10a, b.)

The origin of these and other advances is often obscure and cannot be traced to one place alone. Tandem attachment (that is, the harnessing of draught animals one behind another) was practised in Cisalpine Gaul by Pliny's time; the horseshoe made its earliest European appearance in a Byzantine source of the early tenth century; the 'modern' collar went through many experimentations in Asia before reaching the European west. In every

instance, the progress in the breeding of animals, which from the tenth century on caused horses and mules to become cheaper, and the growth of trade, which at the same period stimulated the demand for better transportation, were instrumental in making the new techniques useful and popular. Through them the horse acquired new dignity. Primarily a beast of war (and the period from the eighth to the fourteenth centuries was that of the great supremacy of feudal cavalry), it was also a rival to the ox for agricultural work. As far as general transport was concerned, however, there was as yet no great change. Road construction methods would in any case have prevented it.⁴ The long distance transport of wool and textiles continued to be by pack-horse and pack-mule; and the more economical movement by water was long to predominate. A contributory factor in the improvement of water-borne transport was that the locks were made more efficient: the earliest double-gated constructions made their appearance in the Netherlands at the end of the twelfth century.

Water power. This brings us to water power. The water-mill was a Mediterranean invention, dating back to the beginning of the Christian era. Its significance had not been fully appreciated against a background of irregular water-supply and abundant man-power, but it came into its own in Atlantic and Nordic Europe. It is mentioned in the laws of the barbarians as early as the sixth century. By the eleventh, its use was widespread: the Domesday Book lists 5,624 water-mills in England alone.⁵

The mills shown in medieval miniatures are still of the vertical wheel type. Successive improvements led to an extension of their use. On the main rivers, 'boat' mills, floating by the banks, were replaced by land-based mills, mounted on piers. Their use was limited at first to crushing seeds by instruments in continuous rotatory movement, as in flour-mills, oil-mills, and tanning-mills. Then it was discovered how to use the transmitted power to give a discontinuous motion; by fitting cog-wheels to the central shaft, this was made to act on the handle of an instrument which was then restored to its original position, either by its own weight or by means of a spring. In this way mallets, hammers, and saws could be adapted for use in the mill. There is evidence of the existence of fulling-mills in the middle eleventh century; iron-mills and hydraulic saws made their appearance a little later, in the twelfth century. (Pl. 9b.)

The windmill. The windmill has been the subject of less study than the water-mill, and less precise information has been elicited about its origins. One early type of the windmill, with a vertical axis, is attested in Iran and, later, in the Arab countries; it may have influenced the windmills which gradually appeared in the Iberian peninsula (by the tenth century in Catalonia), the Greek islands, and other Mediterranean regions where water supply was not continuous enough for water-mills. Another type, with a horizontal axis, is attested by the late twelfth century in north-western Europe, where both water and

wind were abundant. Ultimately, the horizontal axis won the day; the problem of trimming the sails according to wind-direction, which did not arise with the vertical axis, was solved by mounting the mill on an enormous wooden tripod, on which it could be made to pivot by turning a handle. (Pl. 9b, Fig. 13.)

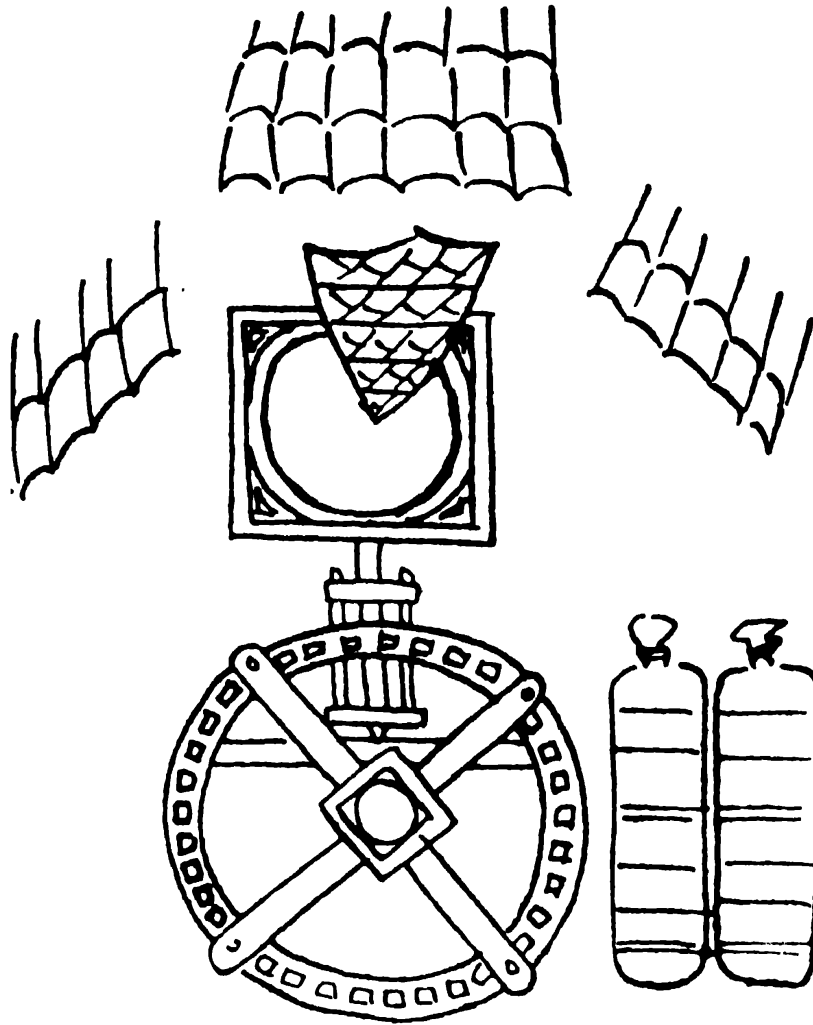


FIG. 13. Flour-mill (after a twelfth-century drawing in San Isidro Church, Madrid).

Ships. The wind, of course, was put to more extensive use in navigation; but it is an unpredictable source of power, and cannot entirely replace motors controlled directly by human hands. Throughout the Middle Ages, shipbuilders worked on various compromise solutions between oarships, which were normally faster and more dependable, and sailships which were roomier and cheaper. The Mediterranean tradition had its masterpiece in the galley, propelled interchangeably by oar and sail: originally a Byzantine modification of a Roman model, it was constantly improved by Italian shipbuilders, and remained throughout the thirteenth century the best vessel at sea. The northern

tradition worked on a prehistoric model, the hollow tree trunk, to which planks were added on the sides; in its Viking form it still was very small and dangerous (although the Scandinavians also used broader sailships), but the angular shape of its keel offered opportunities unavailable to the round-bottomed Mediterranean ship. When combined with the new types of sails which had already been used in the Mediterranean, the northern and Atlantic type of ship, as successively modified by Hanseatic, Basque and Portuguese shipbuilders, carried the day. (Fig. 14.)

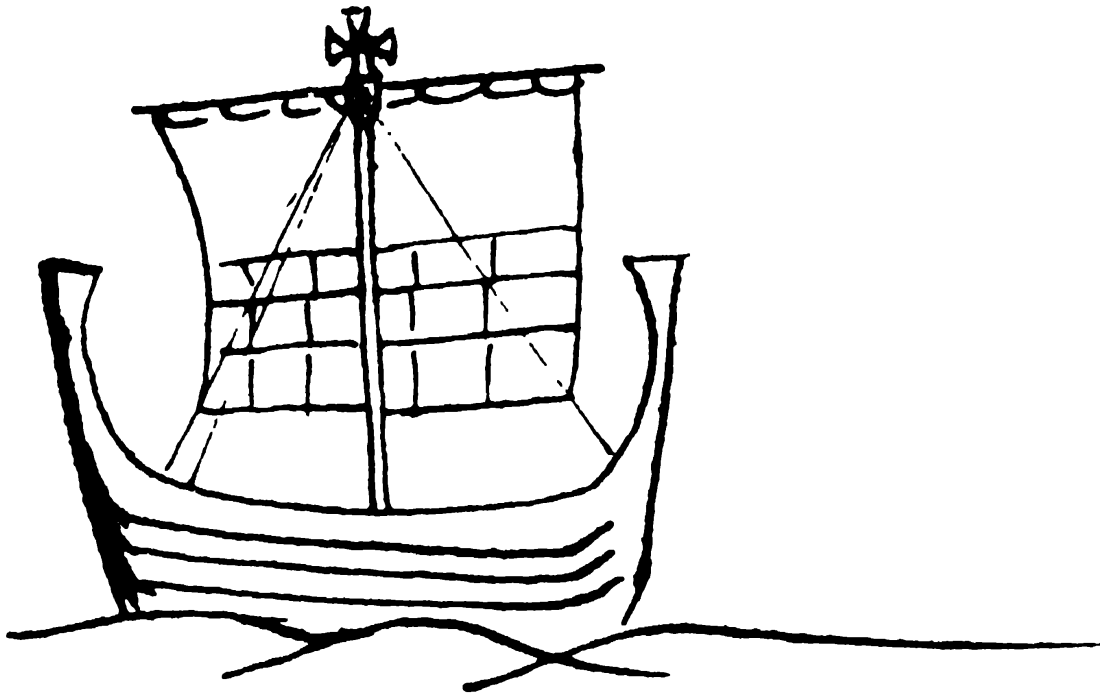


FIG. 14. Northern-type ship: the classical Viking model (a distorted representation from the seal of La Rochelle).

Meanwhile, a number of important inventions were paving the way for the future. First the square sail was discarded in favour of a triangular one, spread point downward, and better able to 'hug the wind'. This sail, quite mistakenly called 'lateen', was probably late Hellenistic; the Byzantine ships used it rather commonly since the seventh century (it appears frequently in Greek miniatures of the ninth), and Italian boats did not adopt it until the twelfth. (Fig. 15.)

No less important was the appearance of the stern-post rudder. Fixed at the rear, and in alignment with the boat, at the raised part of the keel, it was easily manoeuvred by a tiller-bar, and gave turning operations a degree of precision impossible with vessels which relied on side-oars, and made practical the building of larger ships. The earliest European representation of such a rudder dates from about 1180; but it is quite possible that Saxon ships had been fitted with them in the tenth century. (Fig. 16.)

It should be remembered, finally, that the astrolabe, the compass and navigation maps or *portulans* (manuals describing ports and maritime routes), are known to have been in use in Europe in the thirteenth century, and were almost certainly already in circulation in the twelfth. Important as these were,

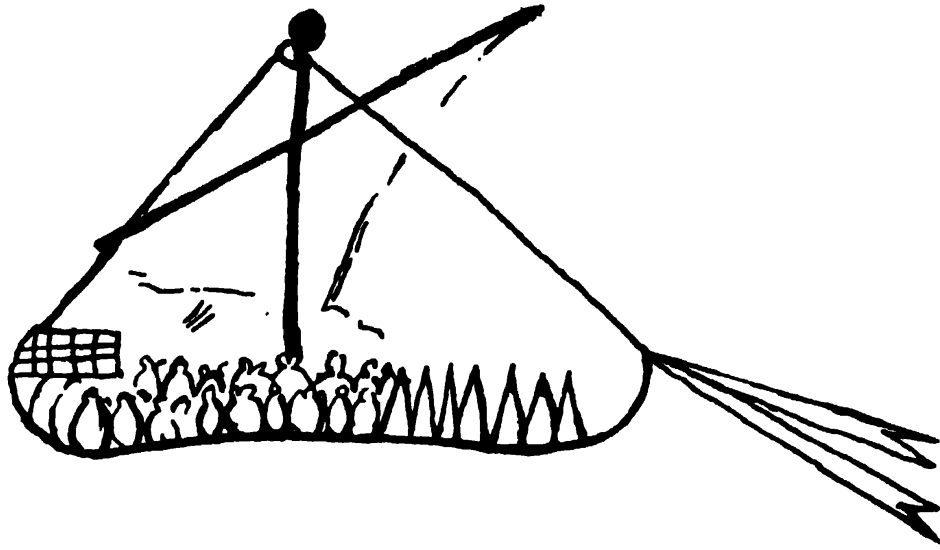


FIG. 15. Lateen sail (from a drawing on the east wall of a church at El'Aujeh).

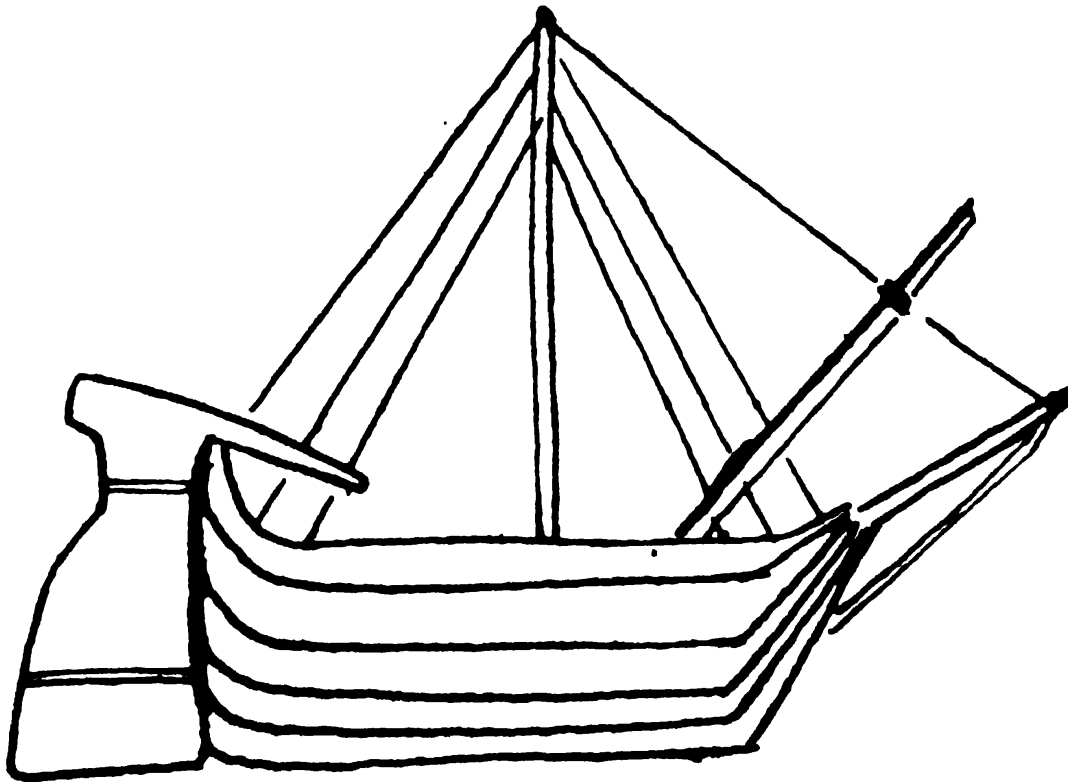


FIG. 16. Boat with a stern-post rudder (after image on the seal of Wismar, 1215).

however, navigation continued for a long time to be based largely on guesswork and rough approximation. (Pl. 5b.)

C. Artisan and Industrial Techniques

The numerous articles found in the tombs of the Merovingian era (from the fifth to the seventh century) show clearly that the Great Invasions brought some radical modifications of the techniques prevailing in Romanian. In the foundry, for example, tempering gave way to annealing (the slow cooling of the metal), the welding of slightly different grades of metals and the addition of nitrogen giving great solidity and flexibility. In general, the changes were retrograde—in some cases a return to primitive methods, of which a number were brought by the barbarians from central Asia and Iran. But certain refinements and new techniques also made their appearance. The abandonment in Carolingian times of the custom of furnishing tombs has deprived us of a valuable source of information, but it would seem certain that this technical upheaval was only temporary. From the eighth century, processes which had been employed in the Roman world were restored to favour.

The textile industries. Henceforth, progress in most fields, was to consist largely in the acquiring of greater skill by greater numbers of craftsmen, who were trained up in gradually enriched family traditions. Also a system of apprenticeship took formal shape. The trade statutes from about the twelfth century onwards are often directed at a general formulation of the standards of the good craftsman, in an effort to assure the quality and soundness of the product. Real innovations are observable only in certain matters of detail.

This is particularly true of the textile industries, the most important in the twelfth and thirteenth centuries, their products—for example woollens from Flanders and Brabant, and silks from Lucca—acquiring by them a deserved reputation. The thirty or so distinct operations involved in the manufacture of these fabrics demanded not only first-class raw materials, but also the most meticulous work on the part of the craftsmen concerned. It was on the conscientiousness and manual skill of the craftsmen that the quality of the finished product depended. A few real technical advances should be recorded. Greater knowledge of chemistry enabled harmful oily by-products to be separated out, and dyes to be mixed more effectively. Two simultaneous or almost simultaneous innovations in the weaving and spinning processes accelerated the output very substantially: the pedal loom, attested both in Byzantine and in western sources of the twelfth century, and the spinning wheel, mentioned slightly later. Fulling also was accelerated through the use of the mill, virtually throughout Europe. A silk-throwing (or silk-winding) mill was adopted in Lucca, and introduced elsewhere by the late thirteenth century.

The metal industry. In the metal industry, new departures were to come but not until later. The demand for them was not yet sufficiently pressing, despite

the developments taking place in the military sphere. There was a demand for ever thicker and more completely protective armour, part leather at first, then entirely of metal. The coat of mail, probably originating in Sassanian Persia, spread through the Byzantine and Moslem territory to western Europe. The same tendency is to be seen in offensive weapons. The cross-bow was probably invented in Carolingian times; by the twelfth century its use was sufficiently general to call for its ineffectual prohibition by the Lateran Council in 1139. The cross-bow had a spring, not of wood but of metal; it was made of steel bands, which were gradually strengthened to give the arrow greater range and power, which in turn entailed a corresponding reinforcement of the mechanism used to stretch and release the spring. These improvements were, however, effected at the expense of manoeuvrability and speed, and the Welsh long-bow eventually regained its popularity, which was confirmed in the early struggles of the Hundred Years' War. The intervening period saw the advent of fire-arms, which were made entirely of metal. In all this we see the first signs of a new period, in which primary importance was no more given to wood, the raw

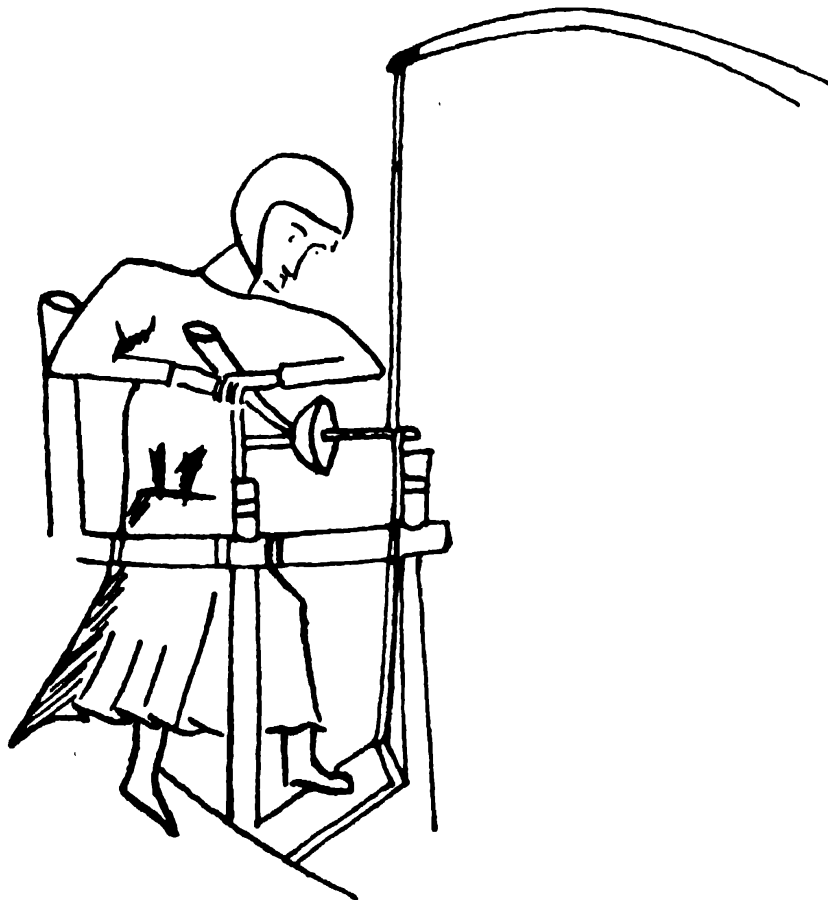


FIG. 17. Lathe, thirteenth century. A cable, wound around the axis of the lathe, connects the pedal with a pole which acts as a spring. By actioning the pedal, the axis turns in an alternating motion (from Latin manuscript 11560, Paris, Bibliothèque nationale).

material which the early machines—hydraulic saws and lathes, for instance—had been built to work. (Fig. 17.)

Mining. Mining methods were still much inferior to those of the Romans. For the most part, the practice was simply to dig an open hole, and abandon it when flooded. Some proper shafts were sunk in central Europe, which was particularly rich in minerals; water was baled out in leather buckets, raised by a hand-winch or, where the shaft was sloping, passed from hand to hand. Although water and horse driven machines for drawing water from the shafts were used in Bohemia by the late thirteenth century, mining methods were inadequate to ensure any sizeable production, especially in regions much wetter than the Mediterranean.

Metallurgy. The extraction of metals was almost as primitive. Iron was still produced directly in the so-called 'Catalan' furnaces. Each operation produced at the most eight to ten pounds of metal, leaving slag which still contained a lot of iron. The use of agents designed to foster melting was unknown. Bellows with plates and valves were brought into use and gave a stronger, steadier flame, but these were at first used only in the extraction of silver; in the fourteenth century their use in iron forges enabled these also to be enlarged. The introduction of water driven hammers to crush the ore, and of water driven bellows to increase the heat, improved refining processes; however, while cast bronze was obtained as early as the twelfth century, cast iron was not obtained before the last decades of the Middle Ages. (Pl. 11a.)

Stained glass. But if progress in metallurgy lagged, things were quite otherwise for the glass industry, for the products of which church-building provided a major outlet. (Pl. 11b.) The requirements of the Church compensated for the decline that had been going on since Roman times in the use of glass articles. The stained glass window came on the scene most opportunely to assist, and perhaps to foster, the general architectural tendency of the time to lighten walls by apertures. The stained glass window is in fact a glass mosaic, in which each colour is represented by a fragment of coloured glass. These fragments have first to be prepared from ferruginous sand containing alumina; they are then coloured, in bulk, by using metallic oxides. The blowing produces plates of uneven thickness, varying from 2 to 6 millimetres, but this very imperfection (as also the air bubbles and impurities to be found in the glass) is, in fact, a source of artistic effect. The plate is then cut with red-hot iron and pincers. Finally, the pieces are assembled according to a model drawn on a table, are painted on with a grey paste known as grisaille, and are then inserted in a lead framework which, if well designed, may make its own contribution to the artistic effect.

Stained glass was produced in the Byzantine Empire at an early date, but we cannot tell whether its use was widespread. In the thirteenth century, an increasing demand for more and bigger stained glass windows led to what was

virtually mass production by workshops such as those of Chartres and Paris. The more skilful craftsmen could now turn out glass of more even thickness, and cut it more expertly. The pressing time factor led also to a simplification of the basic models, and to stylization of the painting.

Although stained glass is artistically more impressive, mass production of glass vessels for everyday use must have been larger. It was practised throughout Europe, Venice and its district being probably the largest producer. By 1300 the Venetian glass-makers' guild enacted a special regulation for the manufacture of spectacles with convex lenses. Glass began to be used in the fabrication of scientific instruments. Reference is already made to small plated mirrors of lead and glass. The glass workshops of Murano, near Venice, developed especially skilled techniques in the production of these articles, together with a reluctance to divulge their secrets.

Construction techniques. Consideration of the work in glass leads on naturally enough to that of construction techniques. Of the achievements of the medieval period, none makes so striking an impression on us as its churches, which became ever bigger and taller. What degree, exactly, of scientific knowledge do these masterpieces presuppose? How was the work that lay behind their building organized?

Architecture. Unquestionably, medieval architecture achieved considerable advances on Roman building techniques. This was less so in Byzantium, where the arch often remained what it had been in the Roman Empire, a concretion held together by mortar. Things went no further here than the combination of the Roman heritage with ideas from the east, and more especially from Persia. Thus the use of bricks for making vaults made it possible to construct them almost without the support of timber centring during the erection. New types of arch were introduced, such as the groined vault, with intersecting arches, constructed by means of panels. True, cupola with pendentives in the shape of spherical triangles is a remarkable response to a challenging problem: How to base a circle on a square?

It was in western Europe however that the major innovations were made. Most churches in the early Middle Ages were roofed with wood. But such timber-work was ill-suited to a troubled epoch, with the ever-present risk of fire. Moreover, timber resources were not inexhaustible, and in certain regions were already showing actual signs of exhaustion. Sooner or later, the idea of replacing the wooden roofs by vaulting had to be entertained. Thenceforth, problems of roof construction dominated the development of European architecture.

The vaults. The first stage on the road to a solution of the problem was marked by the Romanesque vault, which was built up of wedge-shaped blocks cemented into a radiating pattern (as opposed to the Roman assemblage of horizontal layers). The semi-circular shape was retained until the end of the

eleventh century. Supporting arches, thrown at regular intervals across the nave, strengthened the vault, in the construction of which they were also particularly useful. The pillars taking the thrust began to be divided according to the members they supported. The thrust of the vault, however, exerted as it was along the whole length of the nave, still necessitated walls of considerable thickness, reinforced with buttresses at the springing of the supporting arches, but massive throughout, and ill-suited to window apertures. Then greater stress was placed on the advantages of balancing the central nave by lateral ones (aisles) which could, if prudence dictated, be raised as high, and which began to be given a groined vault. The Cluniacs, however, boldly made their central nave much higher, and were led thereby to point the arch of the barrel-vault, to lessen its thrust. Clumsy as it was as yet, such experimentation gives evidence of an 'analytical' approach unknown to the world of ancient Rome.

Gothic architecture. This 'analytical' approach was to dominate the coming epoch. In the classical view, the development of Gothic art is represented as the triumph of technical logic in art. The architect had the idea of giving to the mass of the vault the relief of an 'active ribbing': throwing a pointed arch diagonally across it, and introducing a fillet of shaped stone at the voussoirs of the groined vault—at the points, that is, where it was weakest. The vault became 'an assembly of flexible panels on a skeleton of fillets'. (Choisy) The thrust of the arches was diminished, distributed, and localized. Thereafter all that was necessary was to reinforce the supporting piers at the points where the thrust was greatest. The flying buttress then started life as no more than an expedient, a timber prop erected outside the building to ensure adequate support of the very high Cluniac vaulting. It then passed into established practice: the wood support was replaced by a stone arch, and the problems of siting, contour, and balance were gradually resolved. Thus it was possible to raise yet higher churches, with yet slenderer interior pillars, and to let even wider windows into the wall-space between the bases of the arches. The beauty of Gothic architecture derives from the perfection of these solutions of technical problems.

The concept of a 'medieval rationalism', first formulated by Viollet-le-Duc, has had doubt cast upon it by writers like Pol Abraham, who have queried the purely technical nature of the Gothic solutions, and would re-establish the primacy of the plastic sense. They see the aesthetic quality, not as the end product of a progressive technical mastery, but as the determining factor from the start, technique having simply ministered as best it might to the demands made upon it by taste.

These critics have rightly recalled that the ribbed-vault was in fact used also for visual effect; and they point to the failures of medieval technical capacity, and to the numerous instances of buildings collapsing (e.g. Beauvais Cathedral in 1284), or surviving only as a result of later work on them. Their

theory is nullified, however, by one or two simple facts: the ribbed-vaults, 'invention of stone-masons' (in the apt description of Focillon) was originally conceived as a means of supporting weight; it was subsequently used almost exclusively in the vaulting of all high naves, and numbered among its most constant advocates the Cistercians, who were so firmly opposed to all search after visual effect. The development of Gothic art should not be reduced to any over-simplified formula, but it is impossible to deny it the quality of logic and rationality.

The empirical approach. In fact, great edifices can be raised without a knowledge of the laws of resistance of materials, or of thrust distribution. Experience, progressing by way of failure and groping experiment codified in empirical formulae, and 'tricks' handed on from master to pupil, can, if need be, suffice. And that such groping did take place, to determine the resistance of the pointed arch, or the exact positions for the flying buttresses, is clear from an examination of the buildings. It is in accord with what texts and pictures tell us of the workshops and the training of architects.

The church-builders. The dimensions of the medieval churches tend to make us see in them the collective work of intensely active multitudes. The picture is misleading in all save a few instances of temporary enthusiasm, in which local people and pilgrims vied with each other in transporting heavy blocks of stone. As a rule, the texts reveal only a few dozen workers to a workshop, or, quite exceptionally, a few hundred. The tremendousness of the undertaking was better reflected in the time taken over it. The schemes of work stretched over years, often decades, geared to the uneven rhythm of the resources made available by the faithful; many churches, added to from century to century, never reached their final completion.

Moreover, the workmen were not slaves; payment had to be found for them out of funds that were rarely extensive. Everything conspired to dictate economy of effort. To cut down transport, stone from neighbouring ruins was pressed into service; if such was not available, new blocks were shaped from wooden models before they left the quarry. Scaffolding was reduced to a minimum. The building itself, in its successive stages, was used to provide working platforms. The lifting machines which were used—derricks or cranes—were very simple. (Pl. 12.)

As the size of the building increased, so naturally did that of the workshops, and their organization became correspondingly more complex. The small churches of the early Middle Ages had called for no more than a few masons and carpenters, directed by a contractor, sometimes a monk. But in the great workshops of the thirteenth century specialization was already under way, and the profession of architect was beginning to be recognized. Freed from practical construction work, the architect could direct several workshops at once. We find him figuring occasionally as an 'important personage'. The story

that he favoured anonymity is entirely mythical, and is belied by numerous complacent inscriptions.

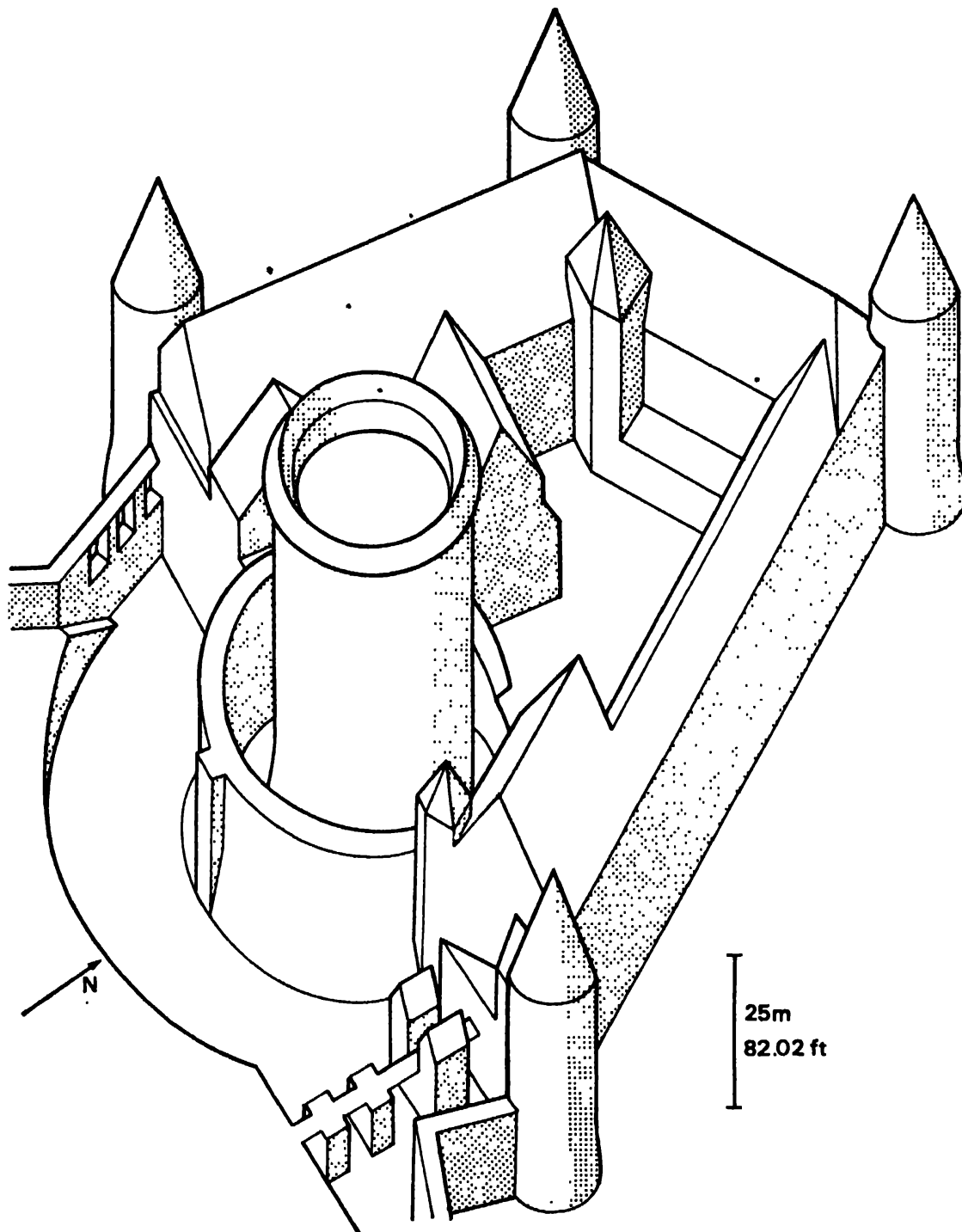


FIG. 18. Thirteenth-century castle: Coucy (Aisne, France). The *donjon* or keep and its two flanking towers describe the base of an isosceles triangle, with the tower on the right indicating the outermost extension. Note the rigorous geometry of the plan (after Auguste Choisy, *History of Architecture*, II, p. 459, Gauthier-Villars, Paris, 1899).

Villard de Honnecourt. The album left by one of these thirteenth century architects, Villard de Honnecourt, has been much studied. It contains, besides drawings of animals, sculptures, and machines of various kinds, a few plans, and very simple sketches of façades and details of churches. (Pl. 12.) Indeed, we have no proper architect's plans dated earlier than the fourteenth century; and even then, the plans, drawn up on parchment in the big workshops, are not geometrical scale plans, with clearly defined dimensions and supplemented by cross-sections, but perspective drawings. The great enigma is how the transition was effected from the plan to the actual construction. It would seem that this was not achieved scientifically—by way of calculations, for which the then available mathematical techniques would in any case have been inadequate—but empirically, with the aid of a fairly rudimentary geometry and 'tricks', never, apparently, rising to precise systems of proportions in which the 'golden number' would have played an important part.

Military architecture. Very similar things may be said of military architecture, where progress, from the wooden tower on a *motte* of the ninth and tenth centuries to the massive stone keep of the eleventh, and the articulated fortifications of the thirteenth, was no less remarkable. The plan was simple, adapted to the site, designed down to its last details to eliminate blind angles and so expose assailants to the fire of the defenders. It involved the erection of angular towers, enabling the defenders to multiply their cross-fire, and serving as independent centres of resistance in emergency; and the systematic spacing of loop-holes and the openings of the *hourds* (projecting wooden galleries on the tops of the walls). Fortifications thus perfected permitted an active defence which could keep the enemy at a distance and break up his shock force. (Fig. 18.)

Another problem of origins arises here. Were these fortresses a transposition westwards of those the Crusaders had admired in the east—at Antioch in particular? Certain coincidences would seem to support such a view: Philip of Alsace, count of Flanders, completed the castle of Ghent on his return from an expedition to Palestine (1176–8), and modelled it on the fortress of Toron (between Tyre and Acre); and Richard Coeur de Lion, when he built the Château Gaillard after the Third Crusade, took his inspiration from the Krak des Chevaliers. On the other hand, some of the most notable examples of progress can be accounted for by a rediscovery of Roman traditions. The question is not a simple one and remains open.

D. Business Organization

With the development of trade, which took place with such startling rapidity in Europe at least from the eleventh century, came problems requiring for their solution not only a developed practical capacity, but also a certain ability to handle figures.

Maritime trade. Maritime trade, especially the Mediterranean trade which was the most active, involved risks, including sharp summer squalls, delays that could immobilize a ship during the enforced winter laying-up, and piracy. To avoid the transport of coin, schemes were devised setting funds which would be transferred in the normal course of trade operations against others to be transferred for the purposes of the Crusades. To reduce the necessity of transporting coins, merchants endeavoured to balance exports and imports of commodities through bilateral trade (for instance; woollen cloth exported to the Levant from western Europe against spices exported from the Levant to western Europe), or, if needed, triangular and multilateral trade (for instance timber from Venice to Africa, gold from Africa to Byzantium, silk from Byzantium to Venice).

Contracts of maritime trade. The maritime loan, granted to a shipowner or a merchant for some maritime enterprise, had been customary in the Roman world. It was repayable only if and when the vessel or cargo arrived safely at the agreed destination. As it offered the combined advantages of credit and insurance, such a loan involved a higher rate of interest than was authorized for transactions of an ordinary nature. The Church regarded it with suspicion, and finally explicitly prohibited it (c. 1230). Henceforth the credit operation of the sea loan, without the insurance feature, was normally concealed through a clause changing the loan to an exchange contract. The most widespread contract to pool capitals and spread risks in maritime trade, however, was not the sea loan, but the *commenda*, probably unknown to the Romans, but used in the early Middle Ages in various forms, by Moslem, Jewish and Byzantine merchants, soon adopted by the other Mediterranean nations, and somewhat later appearing in the northern seas as well. The *commenda* bound, for a single commercial venture at sea, a non-travelling investor who risked his capital for a large share of the profit, and a travelling manager who risked his labour for a smaller share of the profit. This sharing, as in ordinary partnership (*societas*) distinguished the *commenda* from an ordinary loan, which it resembled in every other respect. The immense popularity of the *commenda* depended partly on the fact that it lent itself to almost any combination; it could bring together a rich investor with a poor manager, a poor investor with a rich manager, or two equally affluent people alternating in the rôles of investor and manager.

The medieval fairs. As to inland trade, commercial practice was doubtless very simple at first: the pedlar travelled with his wares and endeavoured to sell them. Such credit operations as he could engage in were not extensive, and he scarcely needed to keep accounts. But matters soon became more complicated. Merchants foregathered at the periodic fairs which succeeded each other throughout the year: the eight-fair cycle of Lombardy, the cycle of six in Flanders, and, especially, the cycle of six in Champagne and Brie (one held at Lagny-sur-Marne, one at Bar-sur-Aube, two at Provins and two at Troyes), so well situated at a natural crossroads. These assemblies were care-

fully organized, and divided into successive stages: the installation, the sale of the various goods and, finally, payment. The relegation of payment to the end made it possible to operate on a compensatory basis, but necessitated the recording of all transactions. It became customary, too, to carry over to a subsequent fair the settling of a debit balance by means of a writ. Moreover, the merchant who came to a fair without the money he needed to buy goods on sale there, could borrow it, on condition that repayment was made at that same fair. Debts contracted elsewhere could also be paid there. In the apt phrase of Henri Pirenne, the fair acted as an embryonic clearing-house for the European economy. This credit system obviated the transport of coin, and increased the possibilities of exchange: it brought with it, however, a technical problem—that of the instruments to be employed.

The 'fair-letter'. In the Netherlands, there came into being something called the 'fair-letter', that is to say a letter of payment at a fair: it was a simple acknowledgement of a debt, drawn up before several municipal magistrates. It took the form of a 'divided letter', two copies being written on the one sheet of parchment which was then torn in two. The magistrates kept one part and the creditor the other, and the fitting together of the two served as proof of authenticity. The 'fair-letter' carried with it the right to exact payment. It was however not a novelty. The Low Countries were not for the most part very enterprising in matters of commercial practice. The real progress was achieved by the Italians.

Money-changers and bankers. Unfortunately, Italian archives contain no private commercial accounts kept before the thirteenth century. Still earlier evidence exists only in scattered form, but it is enough to prove that some money changing and professional lending was carried out as early as the ninth century in western Europe, much earlier in Byzantine and Islamic territory, and probably never was entirely discontinued. But the Church's prohibition of usury—lending in return for interest however small—led merchants to camouflage any such reprehensible activity, and this gives rise to problems of interpretation.

From the second half of the twelfth century, the Genoese money-changers (known as *bancherii*, from the bench on which they handled coin) no longer confined their activities to hand-to-hand exchange of currency. They also accepted deposits from their clients: 'regular' deposits, which were already accepted practice in the Roman world, by the terms of which the bailee must return the actual goods deposited; and also 'irregular' ones, by which he could be called upon only to refund the equivalent in value, and which permitted him to invest part of the deposit meanwhile. Payments between clients of the same changer, or even of several different ones, could be made by appropriate registration of the transfer. Lastly, the changer would grant his clients credit, in the form of advances on account. In this way, starting at local level and arising out of simple exchange, did banking originate. Money-lending, however, was by no means a monopoly of the money changers. Actually, by the

mid-thirteenth century, the largest banking operations were carried out by companies of merchants, especially Italian, while petty lending was the speciality of pawnbrokers, especially Jewish and Piedmontese.

The contract of exchange. The contract of exchange appears only in 1180 (but the documentation is scarce, and it may have been in use earlier). It was an acknowledgement of debt, by legally witnessed contract. By it the debtor promised to repay to his creditor, or his delegate, at a foreign place, and in the currency of the same, the sum originally paid him in the home of the contract and in the home currency. The rate of exchange was fixed at a level to cover interest. The transition to the much shorter bill of exchange (an order to pay, sent to a correspondent on a foreign market) was in full development as early as 1250.

Accounting. Finally, the first advances were made in accounting. In the early days, a merchant found a very simple system sufficient for his needs, entering receipts and expenditure in their chronological order in a single notebook. Then the development of credit operations, and the formation of business firms with capital from different sources, began to complicate matters. The position of the firm vis-à-vis the suppliers of its capital on the one hand, and its debtors and creditors on the other, had to be at all times immediately ascertainable. As distinct from the general income-outgoings register, there were now individual accounts for each of these other items, soon to be entered in a special register, known as the 'ledger'.

The rise of Italian entrepreneurship. Most of the techniques which we have so far described were commonly used throughout the Mediterranean world and, later, spread north. In less elaborate forms, some of them can be traced to Roman and Greek antiquity; nearly all, under less sophisticated forms, are attested in the sparse legal sources of the early medieval Byzantine, Moslem and Jewish merchant society, and in the more abundant private papers of the Jewish community of Old Cairo. How early and how deeply those practices were adopted in western Europe, it is impossible to say so long as records are unavailable; when records first appear, we note that the techniques were fully known in the west, and that they were being improved, especially in the Italian seaports. The Italians alone seem to have been responsible for the contract of maritime insurance, which appears in primitive forms during the thirteenth century and fully mature by the fourteenth, and for other advances in the techniques of sea trade.

The leadership of the Italians was more marked in land trade. Not so much in Genoa and Venice as in cities of the interior, such as Siena, Piacenza and Florence, further progress was made possible by the fact that agreements had normally to be concluded for a longer period—not merely for the duration of one or two voyages at sea, but for several years in a row. The most important contract to pool capitals and spread risks in land trade was not the *commenda*

but the *compagnia* (literally, 'sharing of bread'), a commercial offshoot of the primitive community of goods among members of a family.⁶

It is questionable whether Italian business practices influenced greatly the rest of Europe in sea trade; there were *commenda*-like associations almost everywhere (though not in England) by the late Middle Ages, but insurance was almost exclusively an Italian technique (though the Portuguese also practised it). As for the *compagnia* and its elaborate system of accounting, money transfers, and correspondence, it long remained an Italian speciality, although smaller *compagnia*-like organizations are attested by the early fourteenth century in southern France and Germany, and large ones by the fifteenth century. On the whole, the Italian merchants remained the *entrepreneurs par excellence* of the great medieval commercial development.

Trade becomes sedentary. This same period was marked by an important development of the general commercial framework. At no time had the merchant society consisted exclusively of itinerant pedlars, and at no time did travel become unnecessary for a merchant; but the amplification and stabilization of the currents of trade gradually enabled some merchants to sit fast at the centre of their enterprise and to delegate to agents the transactions of distant business or the management of branches. Transport became a separate industry and took its place as a distinct branch of business activity. Representative of the new type of organization were the larger-scale Italian concerns, where a number of associates were grouped around a family, for a period, which was renewable, of several years. One such family was the Buonsignori of Siena, sometimes nicknamed the 'Rothschilds of the thirteenth century'.

Decline of the fairs. This virtual 'sedentarization' of trade led to a reduction in the importance of the fairs. Those of Champagne and Brie, for instance, feeling in addition the effects of the direct sea connection established between Italy and the Netherlands, surrendered their position to places like Paris and Bruges, where Italian agents installed themselves. It also opened up new facilities for public credit; in the thirteenth century, towns, lords and even sovereigns (those of France and England in particular) were borrowing from the Italian companies, surrendering to them by way of repayment or guarantee the collection of taxes or the exercise of certain administrative functions.

Book-keeping. Lastly, it brought about an extension of technique. Between the headquarters and branch establishments of a firm there sprang up a considerable correspondence. Hence, doubtless, the development from the contract of exchange to the bill of exchange. With the bill of exchange it was no longer a question of a contract drawn up, sealed and witnessed by a lawyer, but of an order to pay addressed by the borrower to a correspondent abroad, in favour of the creditor or his agent. A little later, in the fourteenth century, came the development of double-entry book-keeping, conducted on principles which were to meet the requirements of business enterprise until the end of the nineteenth century.

E. Conclusions

Byzantium. Scant space has been accorded in this chapter to Byzantium. Yet this does not mean that it was not the scene of technical innovation. Though several times translated or recompiled, the agronomical treatises of antiquity had little influence on practical working habits established by centuries-old tradition. Methods of harnessing do not seem to have made the progress noted in Europe. All this is true. But, much as abundance and regularity of rain permitted, the water-mill expanded, besides traditional methods of milling, and even the wind-mill figures in fourteenth-century documents.

Byzantium is more renowned for the high technical standard of its luxury industries. Proof of high skill are various automatons which adorned the emperor's throne room (roaring lions, singing birds . . .). The most important innovations in the jeweller's craft in the ninth and tenth centuries were the introduction of cloisonné, and in pottery the widespread use of glaze. Byzantium scored brilliant successes in silk-weaving in the tenth, eleventh and twelfth centuries, and supplied all European courts with precious fabric. Much would certainly be added to these examples by a detailed study of source material.

Yet the greatest discovery to record belongs to the field of military technique: that of Greek fire, the invention of Callinicos, a Syrian refugee in Constantinople. According to the *Liber Ignium* of Marcus Graecus (ninth century), this fire was made from a compound of sulphur, saltpetre and oil of naphtha. Some explosive ingredient must also have been added; the results were impressive. Thanks to the oil of naphtha, the compound could burn on water. Thrown out from long tubes put at the prow of their ships, Greek fire enabled the Byzantines to repulse the Arab and Russian assaults on Constantinople, and was responsible for more than one victory at sea. Apart from the misnamed lateen sail, and from various contributions in shipbuilding techniques, commercial law and architecture, this Greek fire was the most notable discovery of a place and period in which technical activity, high as was its standard, was characterized chiefly by the gradual enrichment of an existing tradition. Thus it probably did not bring about such a fundamental change in material conditions—mainly as regards agriculture—as was the case in western Europe.

Thus too the case of Byzantium can help us in formulating the essential questions about Europe: What is the main outline? What were the causes and results of the progress achieved?

Discovery or invention? In speaking of this European technical development, we must eschew the word invention, if by this we imply a rigorous process of reasoning from well-established principles to clearly predicted material results. We should speak rather of empirical discovery, the fruit of trial and error; but, as a result of this, certain simple practical rules were nevertheless established: those, for example, in agriculture, which concerned new cycles of crop

rotation, and in architecture, the building of large churches. Such development was so gradual as to be almost imperceptible and explains why, in the period itself, the notion of 'progress' was never explicitly evoked in connection with technical matters. But an incipient mechanism is undeniably already in evidence, though the products of it—among them the adaptation of the mill to new industrial operations, and the improvements made to the spinning-wheel and missile weapons—are as yet very simple.

Problems of origin. Where should we look for the origins of these developments? According to an early theory which historians put forward, we should look to the influence of Asiatic civilization, transmitted by the Arab world. The idea does not go uncorroborated; there is the case of the compass, for example, brought almost certainly from China; and the manufacture of paper, the secrets of which the Arabs learned from the Chinese, and in turn passed on to Christians in Spain and Italy. Equally incontestable, however, is the fact of Europe's own solution, from her own resources, of her own problems, and her starting thereby a process of technical evolution which was to carry her far ahead of achievement elsewhere.

One stimulus to enquiry must have been the necessity for Europeans to adapt processes and techniques to a geographical environment differing from that in which Mediterranean techniques had been developed—to climates usually damper and colder, to landscapes often more uniformly flat, to a greater abundance of water and wood. This is noticeable, naturally, in agricultural techniques; and also in the activities of craftsmen who were obliged, from the eleventh century onwards, by the exhaustion of certain resources such as wood, to apply themselves more seriously to work in stone and metal.

Great importance must be attached to the disappearance of slavery, and the consequent recourse to natural and animal energy. Equally important too, is the necessity that forced European architecture to dispense with the profusion of materials and labour available in ancient Rome. Its architecture is 'that of a society of limited resources, endeavouring to produce works of grandeur: a work of artifice, the contrary of that of Rome'. But this quotation from Auguste Choisy (see Bibliography) further illustrates how inadequate is an explanation by the disappearance of slavery alone. There must have been some positive incentive—in this case, the search after grandeur.

Incentive in this period was compounded of many factors: a sudden increase in population, calling for increased production, better yields, and bigger buildings; military rivalry, still unfortunately a constant among the motivations of technical advance; religious aspirations, urging the Christian to raise for his God buildings ever more expressive in size, nobility, adornment, and atmosphere, of the feelings he felt towards Him.

The diffusion of ideas. No less difficult than the problem of the origins of technical advances is that of their diffusion. This was retarded by the slowness

of all interregional communications; by a social structure in which production was based on the small rural holding (even within the big estates) or little urban workshops; and by the fact that the techniques to be disseminated rarely took the form of codified, systematized knowledge. Ecclesiastical bodies undoubtedly played an important part. The Benedictine abbeys were the first centres of agricultural progress; the Cistercian monasteries were later responsible for handing on building processes, and perhaps the details of certain machines. The contribution of townspeople to technical advances was hardly less important after the tenth century; by the thirteenth century, it overshadowed that of ecclesiastical bodies, not only in the commercial field which was their own, but virtually in every other aspect of technological development.

A further factor was the movement, individual or collective, of technicians of various skills; the Flemish peasants, for example, who reclaimed the marshes of eastern Europe; or the Abbot William of Volpiano who, in about the year 1000, brought Italian building methods to Dijon.

The consequences: social evolution. Although they entailed nothing comparable with the upheaval the world has experienced since the nineteenth century, these technical advances nevertheless had important consequences. Legal and social evolution carries their imprint. In the early Middle Ages, for instance, the rural estates were usually divided into holdings, held by peasant families 'in perpetuity' in return for certain dues and services, and a demesne, consisting mainly of heath and forest but including also some cultivated ground, which, tilled by the tenants as part of their 'services', supplied the needs of the lord's household. With technical development, the balance of this organization was gradually shifted. Many 'services', now rendered useless, were replaced by dues paid in money. Since the demesne gave higher yields, the lord could often make do with a smaller area, and he installed farmers and *métayers* with fixed-term leases which were subject to periodic review in relation to productivity. As the old association between landlord and tenant declined in importance, the manorial framework itself was dislocated. On the other hand, the new mechanical installations—mills, presses, and forges—were intensely exploited by the lord, who, in order to ensure simultaneously the maintenance of the installations and good profits, took advantage of his powers of compulsion (right of ban) to obtain the monopoly of their use. Lastly, stepped-up productivity released a great deal of manual labour, which tended to find its way to new land awaiting clearance or to the towns.

Political changes. On the political level, it may be held that the improved utilization of resources in the Nordic countries, hitherto the most frequently subjected to domination from the Mediterranean zone, enabled them to achieve an independence, and eventually a predominance, in Europe. In this story, the rise of the countries between the Seine and the Rhine in the Carolingian period, the incursions of the Germans into Italy, the conquest of

southern France in the Albigensian Crusade and the rise of the Slav countries, may be regarded as so many different chapters.

The expanding population. Lastly, and it is a point of considerable importance, technical advance while triggered very often by the necessity of feeding an ever larger population, in turn was instrumental in making further growth possible. Its limitations were possibly at the root of the tension between food consumption and productive capacity which manifested itself around 1300 in famines of increasing frequency, and was to culminate in the demographic catastrophes of the fourteenth century. Certainly, from the fourteenth century onwards, greater importance was attached to technical matters, men of science applied their minds to them to greater effect, and the gap between theoretical knowledge and practice began to be bridged. This was the starting-point of a speedier, more complete renewal, but one which would have been impossible without the earlier experimentation recorded here.

NOTES

1. William Marcais, *L'islamisme et la vie urbaine* (Paris, March 1928), pp. 86-100.
2. *Orientalische Steinbücher und Persische Fayencetechnik* (1935).
3. While we have sufficient, if scattered, evidence on the condition of the common man in the later Roman Empire, information on the pre-literate or scarcely literate masses among the Germans, Slavs, and other peoples whom the Romans called barbarians (that is, scarcely vocal or scarcely literate) is exceedingly scant. This has led to a controversy which still persists, in spite of the additional light shed by archaeological research (for mute objects cannot answer queries as clearly as written records). Some scholars maintain that among the Slavs, or the Germans, or both, personal liberty was universal or, at least, prevalent in the peasant communities; further, that the meeting of the free institutions of the barbarians with peasant revolts within the Roman (or Byzantine) Empire led to a general breakdown of slavery and triumph of liberty. Other scholars, without denying either the existence of free barbarian communities or the importance of peasant revolts within the Empire, maintain that slavery was nevertheless well established even among the barbarians, that all peasant revolts ended in failure, and that on the whole the condition of the common man in the early Middle Ages tended to worsen after the fall of the Empire and the formation of organized barbarian states; only the men who owned large estates and were strongly armed preserved their liberty. Between these opposite interpretations, there is room for compromise; but no compromise solution has been so far reached that will satisfy all scholars. Hence we ought to warn the reader that the problem is still controversial. (R. Lopez.)
4. As a matter of fact, the Roman metalled roads, which were almost indestructible, but had too steep gradients and narrow gauge to be of great use for heavy commercial traffic, could not be maintained in good repair without a large output of slave or forced labour. The Middle Ages gradually built a larger, but lighter network of roads which cost little, but were often impassable for carts when the weather was not good; only towards the end of the period were stone paving-blocks added, and in some instances detours were eliminated through elaborate construction work. (R. Lopez.)
5. One should not place too much stress on northern Europe. There was water and there were water-mills in the south, too; it is a mere accident that the Domesday Book gives us figures for England alone. In my opinion, the single largest factor of diffusion of the water-mill was seigniorialism and feudalism, which enabled lords to invest in a water-mill while being sure that they could force all their dependants to use it. (R. Lopez.)

6. The 'companions' were brothers, cousins, or other relatives, who pooled their capital and labour (or a fraction of it) for a number of years and shared both profits and risks in proportion to their investment. Unlike the *commenda*, which entailed no liability beyond the original investment of capital and labour, the *compagnia* made every partner jointly and unlimitedly liable for all others partners; the mistake or misfortune of one partner could easily drag into total ruin an otherwise successful *compagnia*. So long as it was successful, however, the *compagnia* could organize itself and its business with greater continuity than the fleeting contracts of sea trade. (R. Lopez.)

CHAPTER VI

THE EVOLUTION OF LANGUAGES AND WRITING SYSTEMS

I. THE FAR EAST

THE languages of the Far Eastern world were dependent on the considerable development of Chinese. In the four corners of the empire the reactions of the peripheral nations varied with their ways of living. The sedentary or 'civilized' peoples—the Koreans, Annamites and Japanese—adapted Chinese to their speech. While retaining the characters, they modified their use in accordance with the individual nature of their own languages. But the nomads or 'barbarians' were always bilingual; although they chose Chinese as the language of government when they were masters of the empire, they nevertheless kept the proto-Turkish and proto-Mongol speech of their origins for their own use; but it was only when they began to organize themselves into an empire that they began to take a real interest in the development of their language, as the Tu-Kiu did for Turkish in the sixth century and the Jenghizkhanids for Mongol in the thirteenth century.

A. The Formation of the Languages of High Asia

It was only in the twentieth century that, as the result of numerous discoveries of documents, it was possible to formulate a linguistic geography of these regions. In general, a distinction is made between two groups: the Indo-European languages and the Altaic languages.

Of the Indo-European group, special mention should be made of Sogdian which, throughout the first millennium, acted as a lingua franca between the Indo-Iranian world and the Far East. It played a capital part in the diffusion of Buddhistic literature, but few examples of its own literature are extant today. Concurrently with Sogdian, Serindia knew what were formerly known as Tokharian A and B, as distinct from Iranian and Indian, but are more felicitously described today as Kutchian and Agnian. Kutchian was the instrument of culture of the kingdom of Kutch; it was impregnated with Buddhistic literature and various Iranian and Indian treatises, in the same way as Agnian, spoken at Qarashar, which the Khotanese spoke at Khotan and in the southern oases.

In the Altaic group of languages were some spoken by the invaders of India. The latter must each have spoken different tongues appropriate to the groups of tribes—the southern Hiung-nu, T'o-pa, T'u-yu-hwen and Sien pi (or Mu-jong). (cf. Part One, Chapter I.)

The southern Hiung-nu spoke a language about which we have little

information, but what we have, including a text dating from 329 incorporated into the Chinese history of the Tsin dynasty, gives reason to suppose that it was a proto-Turkish tongue including certain proto-Mongol features. So far as the T'o-pa are concerned, information is more detailed, particularly as regards onomastics. The T'o-pa or Tabhgatch leaders received a large number of proto-Mongol tribes towards the end of the fifth century, and three out of seven of the names reveal Mongol influence. The T'o-pa appear, in fact, to have spoken a less pure proto-Turkish tongue than that of the Hiung-nu. The successors to these confederates—the Tu-Kiu—left what are known as the Orkhon Inscriptions. Dating from 731, these texts are the oldest literary monuments of the Turkish language. They are written in an alphabet derived from Sogdian. The Uyghurs, who succeeded the Tu-Kiu, perfected this alphabet and developed an abundant literature on Buddhistic and Nestorian subjects. It should be noted that the Manichaeans resorted to a special alphabet and went to the Iranians for their inspirations. The spread of Uyghur served as a model to the Mongols, but as from the end of the fourteenth century, it began to disappear. The Turkish tradition had been maintained in a purer state in Turkestan. There, in the eleventh century, an Islamic language transcribed into Arabic characters appeared at the court of the Qarakhanids of Kachgar, and certain didactic texts have preserved for us the knowledge available to the Turkish world at that time.

The T'u-yu-hwen, southern neighbours of both the Turks and the Sien-pi, came in fact from the Manchu regions, from which had also come the Kitan, who founded in the tenth century the Chinese Liao dynasty (907-1125). The Kitan spoke a language related to Mongol; a sort of proto-Mongol impregnated with Tungusic influence. Consequently, the T'u-yu-hwen certainly spoke a proto-Mongol language, but influenced in this case by Tibetan. These various proto-Mongol tongues must have been very close to the Mongol presented to us by the thirteenth century texts, for Kublai Khan hoped for the evolution of a Mongol literature, which the adoption of the Uyghur system of writing the Turkish language impeded. He asked the Phags-pa monks to create an alphabet, but this was based on Tibetan and was too complicated, and could not supplant the Uyghur writing which was henceforth considerably improved under the name of Ghalik alphabet. However, it was not till the fourteenth century that a real writing system for the Mongol language emerged.

The Tanguts (or K'iang in Chinese), who were also central Asian neighbours and invaders of China, belonged to a special group from a linguistic point of view. They were Tibetans whose language, together with Burmese, formed a western group of the vast language complex known as the 'Sino-Tibetan' whereas the eastern or 'Sino-Thai' group included Chinese. The Tanguts spoke, therefore, an old Tiberan which must have been close to literary Tibetan. In 1037 the Tanguts invented a writing system based on that of the Kitan; with its overloaded Chinese characters, it remained the most complicated one there is.

There should be no illusion about the grouping defined by modern philologists; Chinese and Tibetans could not understand one another. In this connection, it is worth noting that the affinities between the way of living and the customs of the latter with those of the Turkish peoples were such that the Turkish grammarian Kashgari (eleventh century) classified the Tibetans with them.

B. Written Chinese

The Chinese language, with its invariable monosyllables and its rules of position, works on principles which are simple but the application of which is highly complex. We have now succeeded in understanding the general principles underlying the phonological evolution of this language. Its tendency is towards increasing simplification of its lexical units; the word is monosyllabic and originally formed of a vowel group preceded and followed by final or initial simple consonants constituting a consonantic group. As from the Han dynasty the consonantic groups had disappeared and all that remained in the word were the finals, which were wearing away to an extent which differed according to the dialect. There thus remained the occlusive finals, *-k*, *-t* and *-p* and the nasals *-n* and *-ng*; so that there was a tendency to finish up with a voiced phone, whether preceded by a single consonant or not. At the same time intonations grew softer, and a monotonic accentuated system was substituted for a polytonic non-accentuated one. This was a continuous process, but a number of stages can be detected during the ten centuries from the Han to the T'ang dynasty, for in addition to the lexicographic dictionaries following the tradition, established under the Han dynasty, of graphic and semantic studies (*Enl-ya* and *Shom-wen*), we have the benefit of a dozen dictionaries of rhymes. These are the fruits of phonetic research carried out in the service of poetry, for the rhyme commands the rhythm which allows of cutting up the clauses within a sentence acting as an oral punctuation and doing away with the necessity for any written punctuation. The first of these dictionaries is the *K'ieh yun* (601) of Lu Fa-yen, which gives 36 initials under each of the 206 finals used as a classification framework. The repertory compiled by Sseu-ma Kuang in 1067 (*Tsi yun che chang t'u*) recast those of the T'ang (*T'ang yun*, 715) and the Sung (*Kuang yun*, 1007-11) dynasties and classified the characters under from 120 to 130 finals. Thus we see that, in the space of nearly five centuries, the number of finals dropped from 206 to about 126, making a simplification of 40 per cent. The consonantal finals were consequently less diversified, and many sonants became voiceless (*d* = *t* or *t'*); nevertheless, they were still much richer than today, as is evidenced by Sino-Japanese pronunciations which take into account finals which have now disappeared (Modern Chinese *mu*, Old Chinese *muk*, Modern Japanese *moku*) and which remain only in certain dialects such as Cantonese. Dialects undoubtedly continued to exist in abundance, but the hindrance to political unity

which they constituted was compensated for by the unity of writing, which was well established as from the Han dynasty and the graphic variations of which were consequently connected with the evolution of calligraphy. (cf. Part Two, Chapter V.)

In addition to phonological studies there is the analysis of the medieval texts discovered a few decades ago at Tuen-huang; these texts reveal, above all, the condition of the spoken language, which as far back as the epoch of the eighth to tenth centuries was already so different from the literary language. It was Buddhist preaching which engendered that recited prose, those intoned verses and those first steps in narrative literature which constituted the origins of the Chinese novel. Efforts at popularization, and the desire to be available to the public at large, involved the use of a language of delectable vitality. The same reasons often created a trend towards an epic style. The length of the unending prologues (*ya tso wen*) designed to put people into the picture and of the commentaries enabling them to understand the story better sometimes increased the original text to forty times its length. These texts, bound up with the old prosody of the traditional hymnology, without rhyme and without the strict parallelism dear to the Six Dynasties, also contributed to rendering the prosody flexible, thus opening up the road to the great poets of the T'ang dynasty. Subsequently, the Sung men of letters produced long dissertations on the classification of terms and the rules of poetry. Thus, there appeared the notion of empty characters (*hiu tseu*) and full characters (*che tseu*); the full words denoted everything concrete or palpable—proper nouns, animals, plants, times, etc.; in good style they had to correspond to one another in the sentence. The empty words, which also had to conform to the law of parallelism, were rather used to denote abstract notions, or more properly, actions and methods. This latter aspect was later to cause grammarians to reserve the term empty word to particles, i.e. syntactical elements of the language.

These few aspects of the evolution of Chinese that we have mentioned demonstrate the great maturity of this language as from the fifth century. It was truly a finished instrument of civilization. The neighbours of China—the Annamites, Koreans and Japanese—each adapted this exemplary language to their own requirements. We have chosen to take as an example the case of Japan, where the work of adaptation was certainly the most advanced, although it should be remembered that the two other countries forged their languages with comparable merit.

C. Japanese

It is difficult to define the exact nature of the Japanese language in the fifth century; the most that can be supposed is that it must have been Uralo-Altaic, strongly imbued with Malayo-Polynesian elements. The first documents of the period are written in Chinese; these are Confucianist and Buddhist treatises and legal and administrative texts. The problem arose when, in spite of a

completely different pronunciation and morphology, writing had to be applied to the everyday language. So far as nouns were concerned, there was no difficulty; the Chinese characters were simply read in Japanese and conversely the Japanese word was expressed in writing by the Chinese character with the same meaning. In order to make up for words not existing in Japanese, the Chinese term complete with its pronunciation was introduced, whence, in view of the epoch, the archaic nature of the pronunciation known as Sino-Japanese. The problem became more complicated when a Japanese word without any Chinese equivalent had to be written. In such circumstances the characters with the sound nearest to the syllables making up the Japanese word were taken. For example, the title *mahitokimi* was rendered by five ideograms (*ma-hi-to-ki-mi*). At first the number of characters that could be used for each sound was large, but they were fairly soon reduced to three or four for one sound. This principle was also applied to the writing of particles and the flexional endings peculiar to Japanese grammar. All these transformations undoubtedly occurred haphazardly during the sixth and seventh centuries. Thus, as is shown by an inscription engraved on a statue of the Horyuji, were obtained texts where the Chinese characters sometimes performed a semantic and sometimes a phonetic function. This sort of writing, which was used by the authors of the *Kojiki* and the *Manyo shu* (cf. Part Two, Chapter VI) remained very difficult to decipher. At the beginning of the ninth century a decisive stage was reached. It was decided to use one character and one only (known as a *kana*) to represent each syllable. Thus, there were 47 characters written either in simplified cursive (*hiragana*) or by representing an element of characters (*katakana*). The characters formerly employed in a phonetic function were replaced by these 47 *kanas*; the others were used to render the substantives and radicals of the invariable words. The 47 *kanas* were distributed by the scholars, inspired by Sanskrit, into 50 sounds created by the combination of 5 vowels and 9 consonants, to which were added the 3 sonants *g*, *z* and *t* corresponding to the surds *k*, *s* and *t* and the 2 labials *p* and *b*. These five letters were given a special graphic representation much later when a small sign (*nigori*) indicating voicing was added to the corresponding *kana*. Japanese writing as thus constituted is still that of our contemporaries. Attempts were made as from the twelfth century to draft texts in the syllabaries alone, but the influx of new Chinese terms did not allow of this. The principle, however, persisted and made it possible, as in the primary schools in Japan nowadays, to reduce to a minimum the number of characters and make the texts accessible to subordinate officials with little education. Meanwhile, access to the Chinese texts had been facilitated since the eighth century. The grammatical rôle of the characters (*okoten*), the order of reading (*kaeriten*) and the intonations (*shoten*) were indicated, while proper nouns and place names were indicated by median or lateral red lines. All these annotations (*kunten*) made it possible to read and understand the Chinese texts direct. Many Japanese terms were read in the Chinese way, as the opportunity offered. Thus, the word *tenno*,

indicating emperor won the day over the Japanese reading *sumeramikoto*. At the Kamakura epoch, the spoken language underwent profound changes, but the written language, under the influence of the Chinese notation system, retained the style and grammar of the Heian epoch, which were already five centuries old.

2. THE LANGUAGES OF INDIAN SPACE

A. Languages

Indian culture spread through a vast geographical area and among peoples speaking widely differing languages, belonging to a number of different linguistic families. In India itself, the Indo-Aryan languages of Hindustan gained ground at the expense of the Dravidian languages, spoken almost throughout the Deccan; the Munda languages, confined to the mountainous districts of central India and of no cultural significance; the Tibeto-Burman languages to the north-east, perhaps more widespread in the past than nowadays; and the Himalayan dialects in the process of completely disappearing.

In its spread towards central Asia, Indian civilization encountered Indo-European languages—languages related, therefore, to Sanskrit. Sogdian and Khotanese belonged to the Indo-Iranian group, whereas the languages wrongly known as Tokharian—the Kutchian of Kutch and the Agnian of Karacharh (formerly Agni)—are characterized by archaic traits and similarities with western languages; for example, the treatment of gutturals (the *k* is retained, whereas in the Oriental group it is transformed into a sibilant).

All these languages had a literature including, in addition to translations of Buddhist works, edifying stories and documents dealing with magic and medicine. Sogdian literature also included Christian and Manichaean texts and even secular texts borrowed from Iran.

These languages of central Asia lost ground at the end of the first millenium and were replaced by Uyghur from Turkey. Uyghurs converted to Buddhism or Nestorianism translated the religious texts of the Indo-European languages of central Asia in their turn. Translations of Buddhist texts are frequently written in an alphabet derived from the Indian written language *brahmi*. Near their capital, Kharabalgassoun, have been found fragments of a text written in three languages—Chinese, Uyghur and Sogdian.

The languages used in Indonesia and the Far East belonged to two families. Malayo-Polynesian languages were spoken by the maritime and agricultural populations of south-east Asia before the arrival of the Khmers. Cham and Old Javanese belonged to this family. The peoples who spoke non-Khmer languages were, apart from tribes with no written language, the Mon of lower Burma and the Dvāravatī and Khmer of Cambodia.

Khmer and Mon, in spite of their tendency towards monosyllabism, form

polysyllabic words by the use of infixes. Monosyllabic languages occurred further to the north—Thai (spoken in Nan-Chao) only appears within the orbit of Indian civilization right at the end of the period with which we are concerned. Like Vietnamese, which progressively substituted itself for Cham all along the Annamite coast, it is a tonal language.

Sanskrit

Amidst all this diversity there is one element of unity: the leading rôle played by Sanskrit. This pre-eminence of Sanskrit is the linguistic equivalent of Brahminic organization, which superimposes itself upon the most widely differing ethnic traditions. It is the consequence—and at the same time the instrument—of that religious unity which is Indian unity. For it is in Sanskrit that *dharma* is expressed.

But what was the place of Sanskrit in medieval India? Are we dealing with a language which had been dead for many centuries, and only written and understood by specialists? Do not the Aśoka inscriptions prove that, as from the third century B.C. the spoken language, while assuming local variants, was also becoming removed from Sanskrit not only by phonetic erosion but also by morphological simplification? As a result, should not Sanskrit have been relegated to the rôle of a liturgical language, used only by priests and a few pedants?

Nothing of the sort! All elementary and advanced education was in Sanskrit and this was the language which the children learnt to read as from the age of five. It could, therefore, be understood by a large number of people and was in fact the only language common to the Indians of the various provinces.

And yet, Sanskrit has the well-earned reputation of being a difficult language. Al Biruni, at the beginning of the eleventh century, quite rightly said that 'this language, so rich in words and inflexions . . . which gives various names to the same object and a single name to different objects . . . is very difficult to understand except by its context'.

But classical Sanskrit, which has no dialectal varieties and is very strictly defined by the grammatical standard laid down by Pāṇini, nevertheless includes numerous 'states of language'. This is more a matter of style than of grammar.

The language of literary composition—or of *Kāvya*, as it is called—encumbered by research which appears excessive to those who have not had a long experience of it, is similar, as an Indian commentator of the fifteenth century admits, to a coconut, the milk of which is enclosed in a very hard husk. Words, thanks to the flexibility of composition which is capable of expressing all syntactical relations, stretch out to inordinate lengths, at the expense, of course, of clarity, but this very ambiguity of relations expressed by the juxtaposition of subjects is a cause of misunderstanding which the poets do not fail to exploit. In prose, the sentences become longer, and attain several hundred

words in the case of an author like Bāṇa. Comparisons abound, and are developed in such a way that the entire escort of epithets and complements can be applied to both terms. The poet plays with the meanings of words and exploits all the resources of the Sanskrit vocabulary—synonyms and words with two meanings—without fearing to resort to rare words or use well-known words in a sense far removed from their original meaning, or even to resort to punning or analysing a composite word in several ways by cutting it at various places. The taste for the most acrobatic sound effects wantonly increases the difficulties of writing and understanding. Thus, Daṇḍin wrote an entire passage of his novel without using a single labial.

This ornate language of the literary texts was confined to an intellectual élite, among whom, to judge from certain literary evidence, the snobbery of using difficult and designedly obscure speech, was rife in the Middle Ages.

And yet, the existence of plays for the theatre proves that a comparatively difficult Sanskrit was understood by wide sections of the public. However, some authors took care to use a language which was both elegant and simple. Reproducing in a different form an instruction contained in the *Nāṭyaśāstra* (treatise on dramatic art), the poet Bhāmaha suggests that literary works should be clear and that 'the meaning should be accessible not only to educated people but to women and children'. And in fact the best Sanskrit—that of the great masters of the language—is comparatively simple, while remaining correct and elegant. Certain narrative passages, such as some of the stories in the *Vetālapāñchavimṣṭi* can be understood after only a few weeks' study of the language.

In addition, in view of the diversity of Indian tongues, a religious *koine* was essential for the instruction of the faithful speaking different languages in the great centres of pilgrimage, where the crowds mixed and India became aware of her unity. The priests responsible for guarding the holy places had to make themselves understood to this mixture of races, peoples and sects. It would appear that here too Sanskrit was used, although a slightly different Sanskrit.

The religious texts—the *purāṇas* and *āgamas*—glorifying the holy places are easier to understand than the literary works; at the same time, they are frequently not so strictly correct. The priests who recited them were not eminent grammarians, but Brahmins of the second order, upon whom their knowledge of Sanskrit, though imperfect, conferred a certain prestige so far as the masses were concerned.

Lastly, Sanskrit was certainly as a sort of lingua franca, side by side with the vernaculars, up till the time of the Moslem invasions. This, however, could only have been a simplified Sanskrit which undoubtedly was not devoid of grammatical imperfections in many cases. And it undoubtedly occurred that the learned tongue and the vernacular were mixed up inside one and the same sentence. The Kāshmīri historian Kalhaṇa provides us with a picturesque example of this. Such a simplified Sanskrit—and a purely conjectural one since we are dealing with an exclusively spoken language—must have been

understood by a very large number of people in certain regions of India up till the end of the thirteenth century at least, and Bilhana in the eleventh century tells us that in Kāshmir even women understood Sanskrit.

But there were even more incorrect examples of the language—the hybrid Sanskrit in which certain Buddhist texts were either written or, as has sometimes been suggested, translated from a prākṛit original.

The 'Indian Average'

Side by side with this ancient language, artificially maintained in an archaic state with its evolution slowed down if not completely stopped, but not dead on that account, what were the spoken languages of northern India? We have no idea what they were before the appearance of the modern Indo-Aryan languages. The literary prākṛits, such as those spoken in plays by women and by men of low condition, were, in spite of their geographical designations (Māghadi, Śauraseni, etc.) conventional languages, fixed once and for all, in spite of the diversity and evolution of the spoken dialects. Māhārāṣṭri, for example, beloved of the poets on account of the harmonious flow resulting from a phonetic erosion consisting of dropping many consonants and accumulating vowels in hiatus, would be difficult to understand in current usage.

But the prākṛits were still used by the poets in the Middle Ages, particularly for the theatre (an entire play was written in prākṛit) and for writing chronicles and semi-historical epics. Vākpatirāja, the protégé of Yaśovarman of Kanauj, devoted an epic in Māhārāṣṭri to the glory of his master Gaudavadhā, (*The Murder of the King of Bengal*), while Hemachandra—of whom more will be said in connection with Jainism—illustrated the rules of prākṛit grammar by terminating in prākṛit the poem to the glory of Kumārapāla of Anhilwāra, the first part of which was written with a similar grammatical object in Sanskrit.

For the fact is that the Jains wrote a great deal in prākṛit. As for the Sinhalese Buddhists, they used Pāli, an archaic Indian tongue in which, according to tradition, Buddha preached. The Sinhalese chronicles entitled *Mahāvamsa* (The Great Chronicle), written at the beginning of the sixth century, re-tells more elegantly in Pāli-Bhaṣa the *Dīpavamsa* (The Island Chronicle) written about the year 400. Other texts relate the story of the Tree of Bodhi or of various relics. To these must be added, in addition to the doctrinary work of the monk Anuruddha, various religious poems.

As from the tenth century at the latest, there appears an intermediate language between the prākṛit and modern Indo-Aryan, which is known as Apabhraṃśa—meaning the 'fallen' dialect—dialectal forms of which correspond to the various prākṛits. But these dialects, although attempts have been made to associate them with modern languages, are almost as artificial as the literary prākṛits. They are less of an archaic vernacular than a dissimulation of living tongues dressed up '*à la prākṛite*'. (Jules Bloch.) The result is that works in Apabhraṃśa generally lack spontaneity and naturalness, sometimes more than the Sanskrit narrative works; they are stories, epics and lyric poems,

often of Jain inspiration, situated between the tenth and twelfth centuries.

This use of Apabhraṃśa would appear to be a concession, for which the Jains of Gujarāt were responsible, to the linguistic evolution which grammarians consider a degradation. Its literary use, combined with the prestige of Sanskrit, undoubtedly retarded the appearance of the modern Indo-Aryan languages in literature.

Modern Indo-Aryan Languages

The appearance of spoken languages, known as vernaculars, is the great linguistic event of the epoch. It would appear that it was Bengāl which set the example. At the beginning of the present century, an Indian scholar discovered documents which were just as interesting from the linguistic as from the religious point of view. The mystic stanzas of Saraha would appear to date from the tenth century and those of Kanha perhaps from the seventh. The language of these texts is an archaic form of Bengālī, approximating to old Oriya and old Maithili. But the decline of Buddhism under the Senas provoked a revival of Sanskrit which is the language of Vaiṣṇavism both in Bengāl and the Kanara region. It was in Sanskrit that Jayadeva described the loves of Krishna; but his poem, in addition to employing other elements foreign to traditional Sanskrit poetry, makes use of rhymes like poetry in the vernacular. However, Umāpati, whose poems, which were passed on by word of mouth, were originally either in Bengālī or in the Maithili dialect which is closely related to it, may well be the Sanskrit poet Umāpatidhara, slightly earlier than Jayadeva.

Hindi, which today, in a form originating from the northern district of Doab, is the most extensively used language in the sub-continent and the national language of the Indian Republic, may well have been used by a poet at the court of Yaśovarman of Kanauj at the beginning of the eighth century. But his work has been lost, and the oldest dated example of this language is a translation of the *Bhāgavad Gīta* made in 1011. This language is essentially that of the Ganges basin as far as Banāras; it includes numerous dialects, including Braj, used around the town of Mathura. It is obviously impossible to define, in respect of the ancient phase of Hindi, the area over which its various dialects extended, but the spoken languages of Rājasthān and even of Gujerāt could be considered as dialectal forms of Hindi.

The most venerable of the great Hindi works is probably the famous *Prithvi-Rāj Raso* by Chand Bardai. It dates from the end of the twelfth or beginning of the thirteenth century. Its language is very archaic and mixed up with Apabhraṃśa, but the text is badly preserved and makes sound judgment a difficult matter. About the year 1300, Amir Khusro (1255-1324), the bulk of whose writings were in Persian, was not above composing in Hindi.

The human contacts which resulted in the formation of Urdu—a language with Hindi grammar but mostly of Arabic and Persian vocabulary—undoubtedly began before the thirteenth century. Most of the scribes using it

were craftsmen. It is also curious to note that Arabic words had already infiltrated into Sanskrit in the eleventh century.

The oldest texts in the Marāṭhi language go back to the end of the twelfth century. These are the philosophical poems of Mukundarāj, chaplain to the king of Devagiri, Jayapāla. A century later, Jñāndev, who in 1320 finished *Bhāvārtadīpaka* (The Lamp for the Inner Meaning) of the *Bhāgavad Gīta*, borrowed from folk songs the verses of his mystical poems—this was the *ōvi* metre of the rice-pounders. Three rhymed verses are followed by a shorted unrhymed verse. It is well known how much in favour metric schemes of this type were at that time—from the Moslem world to the western world of the troubadours (*zajel*, etc.).

Thus, little by little, new and more direct means of expression, of which India had hitherto been deprived, came into being; the language of the people became the language of literature; the lower castes made their contribution to the sum of Indian civilization, and it is by no means impossible that the Moslem conquest may have greatly assisted the vernaculars in freeing themselves from the constraint imposed by Sanskrit.

The Dravidian Languages

Vastly different was the situation in the Deccan, the fief of the Dravidian languages, not only because the spoken languages had nothing in common with Sanskrit but also because Tamil at least was a literary language—and a scholarly one—even before the Aryan influence reached the south.

Tamil was certainly not the leading Dravidian language in terms of the number speaking it; in the Middle Ages, as today, that place was occupied by Telugu. But its literature is much older and more extensive. Of all the Dravidian literary languages, it is the one which was the least subjected to the influence of Sanskrit and which best preserved its Dravidian character. Its grammar was codified very early (fifth century?) in a remarkable text written in old Tamil. Linked to Tamil was an artificial language—*Manipravāḷam*—mainly used for philosophical commentaries; its vocabulary was Sanskrit, but its morphology Tamil. This unsuccessful attempt at a mixed language (the chief texts date from the tenth to the thirteenth centuries) emphasizes the difficulties arising from the coexistence of languages of radically different structures and the efforts made to try and overcome them.

Tamil evolved very little during the period under consideration, but its vocabulary was invaded by Sanskrit words adapted to the rules of Tamil phonetics. Thus the honorific *sri* became *tiru* in Tamil, and *dharma* became *tarumam*.

Malayalam, which was merely a dialect of Tamil and was spoken in Kerala on the Malabār coast, achieved individuality towards the end of the tenth century. It was first used for inscriptions on copper plates, but the oldest literary work written in this language—the *Ramacharitra*—may possibly be earlier than 1300.

Sanskrit influence on Kannada and Telugu was of earlier date and more extensive than on Tamil. These languages adopted Sanskrit sounds unknown in Tamil or the unwritten Dravidian languages, such as the aspirated occlusives.

Kannada, which was spoken throughout a vast region of the Deccan as far north as Krishna, has a literature going back to the ninth century, but it is attested by epigraphy dating back to the middle of the fifth century. Kannada epigraphy constitutes an important source for the history of civilization.

Telugu, the Dravidian language upon which Sanskrit exerted the most profound influence, appears in epitaphs only from the sixth century. Its literature, which we only know as from the eleventh century, is out-and-out Śaivīlē and anti-Jain, but an older Telugu poetry must surely have existed, since a Sanskrit treatise probably belonging to the sixth century sets forth the principles of Telugu metre. According to a tradition preserved in Tibet, the Buddhist teacher Nāgārjuna, who lived in the second century, had the Sanskrit Buddhist texts translated into Telugu.

The Languages of Outer India

The languages of Tibet and south-east Asia which were historically significant before the fourteenth century belong to three major families. Tibeto-Burman includes, in addition to Tibetan and Burmese, languages of secondary interest such as Pyu, the pioneer of the family in Burma before the Burmans went south, of which only a few inscriptions remain. Mon-Khmer includes the Mon of Dvāravati and the Khmer of Cambodia, but these two important languages of civilization should be compared with poor Moi or Pnong dialects of Annam and Cambodia which history has ignored. Indonesian is represented not only by old Javanese but also by Cham, the linguistic position of which is difficult to determine owing to the numerous elements likening it to Mon-Khmer; in any case, Cham is not isolated in Indo-China since the Moi, Jarei, Radeh and other dialects are related to it (whereas Bahnar and Stieng belong to the Mon-Khmer group).

One would hesitate to link Vietnamese to Mon-Khmer or to Thai, which only appears at the end of the thirteenth century in Indianized Indo-China.

The linguistic picture of south-east Asia, in fact, is very difficult to draw for two reasons—one connected with linguistics as such and the other cultural. All these somewhat crude languages have only a limited morphological equipment; this makes it impossible for the philologist to work out comparative grammars similar to those for the Indo-European or Semitic; in addition, the vocabulary provides only an imperfectly valid criterion, owing to borrowings, which may affect the most stable elements of the language. Moreover, the influence of the cultural languages—those of India and Chinese—may well have modified the aspect of the indigenous languages to the point of rendering the ancient base unrecognizable. For example, at first sight Cambodian and Vietnamese would appear to belong to two radically different types, but in this

case the penetration of the mental equipment by imported methods of thinking and expression seriously obscures the archaic structures. Writing expresses this strikingly: Cambodian was written in the Indian alphabet, Vietnamese, before the supposed Romanization by the Portuguese missionaries (the *quoc ngu*) in Chinese characters, and we all know what an intimate relation there was between Chinese linguistic and graphic structure. And yet, many words are common to Mon-Khmer and Vietnamese. Day is *thngay* in Cambodian (*sngay* in Mon) and *ngay* in Vietnamese; Vietnamese *con*, meaning small (of an animal) is pronounced almost the same as *kaun* in Cambodian; some of the words for numbers are also the same. Of course, Vietnamese is a tonal language. But how does a language acquire or lose a tonal system?

The structure of all these languages was, in any case, very ill-adapted to the expression of Indian ways of thought. This inadequacy was aggravated by the poverty of the abstract vocabulary. Each language had to react in function of its own genius and of the circumstances.

Old Khmer is known only from the inscriptions. The language lent itself to the elaboration of complex sentences, while prefixing and infixing allowed for a growth of the vocabulary. Numerous Sanskrit words (and also Middle-Indian and Dravidian words) were introduced into the language, sometimes with an altered meaning, but the syntax did not allow itself to be changed. Anyhow, Indian influence exerted itself at different stages of history, and various strata of Indian vocabulary were deposited in the language; subsequently, the introduction of Sinhalese Buddhism gave rise to Buddhist methods of expression—‘to receive alms of rice’ instead of ‘to eat’, ‘to receive one’s destiny of impermanence’ for ‘to die’—and a strong current of Pāli influence renewed the vocabulary.

Old Javanese, like Khmer, borrowed an abundant vocabulary from the languages of India, particularly from Sanskrit, while retaining Indonesian grammar. But in Java a literary language, *Kavi*, was created; practically the only Malayo-Polynesian feature of it was the syntax; the vocabulary was Sanskrit.

In the Tibeto-Burman sphere, Burmese is mainly influenced by Pāli and borrows its entire civilized vocabulary. But Burmese literature is relatively poor, and Burmese was scarcely used apart from inscriptions (the oldest of which, in Mon characters, would appear to date from 1058) except for Buddhist texts and certain treatises. Si-Hia literature, which was also expressed in Tibeto-Burman and died out in the thirteenth century, belongs to Chinese civilization.

In Tibet, on the other hand, there is intense literary activity from the seventh to the thirteenth centuries. This language of nomadic shepherds, noted down as from the seventh century in an alphabet originating from Kāshmir or central Asia adapted for the purpose, rapidly became capable of expressing the most subtle shades of thought. As far back as the ninth century the *Mahāvvyutpatti*—a dictionary containing about 9,500 expressions—was

compiled. Indian and Tibetan translators (*lotsava*) working in collaboration put into Tibetan not only the canonical works of Buddhism which constitute the *Kanjur* but also abundant and voluminous commentaries grouped under the name of *Tanjore*. The *Tanjore*, incidentally, also contains secular works such as medical treatises and even the *Meghadūta* of Kālidāsa. For this purpose, Tibetan had to forge itself a vocabulary; it borrows as little as possible and uses periphrases. Thus, the word *ratna* (jewels) becomes *rin-chen* (large price), and *guru* (spiritual master) becomes *bla-ma* (superior). These periphrases are sometimes constructed on the basis of Indian speculation, which is aimed at producing implicit meaning from the actual form of the word (what is known in Sanskrit as *nirukta*, which should not be translated as etymology). For example, the Buddhist name of the Saint—*arhant*—is the present participle of a root meaning 'to be worthy' and can be cunningly interpreted as 'he who has killed' (*han-*) the enemies (*ari-*); i.e. the Passions (in Tibetan, *dgra-bcom-pa*).

Thus, in spite of the difference in structure between Sanskrit and Tibetan, and thanks to the combined efforts of the Indian monks and the *lotsavas*, Tibetan translations are so exact that it is not impossible to attempt a conjectural reconstitution of the Sanskrit originals from the Tibetan texts. As many Buddhist works were lost for ever at the time of the sack of the universities by the Turko-Afghans, the Tibetan translations constitute a source of the very first importance for a knowledge of Indian Buddhism, particularly that of the Middle Ages.

B. Writing

All these languages were written by means of alphabets, all derived from the ancient Brahmi alphabet (see Volume II, pp. 340 and 612). This precise and convenient alphabet, unlike Semitic ones, notes all phonemes, both vocalic and consonantal. But it was adapted to the phonetics of Sanskrit and the *prākṛits*, and it had to be supplemented in order to notate other languages. Thus, it was necessary to create new signs in order to differentiate between long and short *e* and *o* (*e* and *o* are always long in Sanskrit) and the three *n*'s and three *l*'s of Tamil.

The best known of Indian alphabets—*Nāgari*—begins to appear as from the seventh century, and has changed little since. That known as *Siddham* (success)—a word of good omen placed at the head of the alphabet—is closely related to *Nāgari*. Writing with this alphabet was the most widespread at the time of Al Biruni. It was used as far afield as Indo-China, China and Japan, where it is still used for writing Sanskrit formulae. Among other important forms of writing used in the north for numerous manuscripts, mention should be made of the Nepāl alphabets and *Sārada*, which belongs to Kāshmir.

The promotion of a language to a written language was everywhere considered as a step forward, but it was the Tibetans who celebrated the creation of their

national writing with the greatest pomp. Thon-mi Sambhota, minister of Srong-bcan Sgam-po, worked out the Tibetan alphabet at Lhāsā on his return from a mission to India (or central Asia) on the basis of an alphabet which may have originated from Kāshmir.

The forms of writing used in the south, which are more rounded, evolved from characters used by the Pallavas, into three groups—Telugu, Kannada and Tamil—the latter often being called *grantha* (book). Malayalam and Sinhalese writing are related to *grantha*. Indo-Chinese and Indonesian writing are related to the characters used in southern India, although this has not prevented them from diversifying and deviating considerably from their originals.

Equipment used for writing did not differ from that employed in the previous period. Inscriptions and deeds were engraved on stone or, in India, on copper. Books and documents not destined to posterity were written on palm leaves or, in the Himalayan area, on specially treated birch bark. *Laissez passers* for caravans were inscribed, in central Asia, on wood. Paper, known in central Asia from the fourth or fifth century onwards, was only introduced into India by the Moslem invaders and only began to be used extensively from the thirteenth century. Even then, it did not replace local materials, which were just as convenient and much more economical.

3. THE ARAB WORLD

A. Armenian

Between 392 and 405, Bishop Mesrop devised the Armenian alphabet, which seemed to him absolutely necessary. (Pl. 14a.) Armenians, under Byzantine domination, had access to the Gospels only through Greek or Syriac texts. On the Persian side teaching in Syriac only was permitted by the governors. There were cogent religious and national motivations behind this move and Mesrop's nature is clearly defined in the following comment: 'The great converters are those who invent alphabets.'

Mesrop modelled his method of writing on the Greek alphabet for the formation of syllables and the direction of writing from left to right. Each phoneme is represented by its own sign. The system was so well worked-out that it provided the Armenian people with a phonetic expression that has remained in use unaltered to the present day, no improvement having been found necessary on what was, from the beginning, a perfect instrument. Here then, on all accounts, was an inspired success. René Grousset wrote that 'few events have been of such importance in the life of a people as the creation of the Mesropian alphabet. At one stroke Armenian acquired the stature of a literary language: the educated classes ceased to be "denationalized" as it were, in relation to Byzantine or Syrian culture life.' Mesrop also conceived alphabets for Udi, the language of the Albanians, and for Georgian.

Soon after Georgian and Armenian versions of the Bible were made. A

similar development took place in Africa with an Ethiopian rendering of the Old Testament. Translations into Armenian, Georgian and Ethiopian were taken from the Septuagint. But the Ethiopian version represents the purely Greek scriptural tradition,¹ while the Armenian and Georgian texts, being based on the researches of Origen, incorporated parts of the Hebraic. The works are of considerable philological interest, each of them marking the emergence of a new writing and an original type of civilization.

B. Works in Pahlavi

Post-Islamic collections, which continued to be made until the eleventh century, have preserved works in Pahlavi; for theologians were singularly active in their efforts to assure the survival of both Zoroastrian doctrine and the national language. Of value for the history of Sassanian culture are the *Denkard*, or 'Acts of Religion', a compilation of the ninth century, and an apocalypse or visionary account of heaven and hell. Mention must also be made of certain juridical fragments, in particular the fragments of the *Andarz*, or 'Books of Counsel', those famous manuals of faultless behaviour, the influence of which was so marked on the early Abbasid period. A great part of this literature, it should be noted, has come down to us in Arab translations by Ibn Mukaffa of *Kalila and Dimna* and *The Book of the Persian Kings*. 'At the time of the Moslem conquest, convincing evidence is given in the third book of the Pahlavi *Denkard* of the flexibility and precision of a language employable for the refutation of the dogma of Islam without a single recourse to borrowed terms, and the assistance of exclusively semantic equivalents in pure Iranian.' (J. de Menasce.)

Persian writing was, and continued to be, ruled by a system originating in Achaemenid times and propagated by the scribes of the succeeding periods. The Achaemenids had employed Aramaic in its classical form (the so-called Imperial Aramaic) as an official language for written expression, the documents being translated orally into Persian for the king and the high officials. In the course of time, a growing number of words were written in Persian, and the language shifted almost imperceptibly from Aramaic into Persian, while the basic vocabulary continued to be written with petrified Aramaic words treated as ideograms and the rest in Persian, the whole conglomerate being read aloud in Persian. At least two different systems were in use later, one for the Parthian dialect in the north, another for Persian (Pārsīk) in the south. A third variety was in use in central Asia—the Sogdian. By a curious shift, the name of the Parthian system, Pahlavānīk, later came to mean the Pārsīk form of language, and writing in the Zoroastrian books, the so-called Book Pahlavi. The Sassanian kings used to carve parallel inscriptions in Pahlavānīk and Pārsīk.

In late Sassanian times and after, when the body of Zoroastrian religious literature was composed, the Middle Persian writing had become extremely

cursive, only fourteen different shapes of letters remaining of the original twenty-two of the Aramaic alphabet. This, together with the use of ideograms makes the reading of Book Pahlavi quite a difficult and often hazardous task.

The impracticability of the Pahlavi writing was seen already in the third century by Mani, the founder of the Manichaean religion, who wrote his religious writings in Persian, not in Pahlavi, but with a form of the Babylonian Aramaic writing where the letters were unequivocal and no ideograms admitted. Such a writing must, of course, have appeared heretical to the Zoroastrians, who continued to use the Pahlavi writing.

However, they resorted to a reform of their own, when they had to ascertain the correct reading of the body of Zoroastrian holy books, the Avesta (not to be confused with the religious books in Pahlavi). These texts which included, among other things, the *gathas* or hymns of Zarathustra (Zoroaster), had been preserved for centuries (partly perhaps for a millennium) by oral tradition, like the Vedic texts in India. These texts were couched in Old Iranian dialects and were already in Sassanian times almost ununderstandable even to the learned (the Pahlavi translations often betray the uncertainty of the translators). Varied opinions have been expressed by scholars as to the putting into writing of the Avesta—some maintaining that this was made only at the advent of Islam, and because of the need to be able to present a holy book to legitimate the claims of the non-Islamic religion. The more common opinion is that the Avesta was put down in writing already in Arsacide times with the Pahlavi—with all the uncertainty in reading resulting of this incomplete medium. In late Sassanian times, however, a more adequate alphabet for the Avestan texts was developed by using the unambiguous signs of the Pahlavi alphabet and by addition of freely invented signs for other sounds. The result was a marvelously precise phonetic alphabet expressing both consonants and vowels.

Although the correct pronunciation had thus been safeguarded, the Zoroastrian priests continued to learn the Avesta or parts thereof by heart, as they had been doing for centuries. The Arabic historian Mas'udi tells in his *Murūdj adh-dhahab*: 'The Magians are up to now unable to learn by heart (the whole of) their revealed book, and their *mobadhs* take a group of those who know by heart a seventh or fourth or third part of this book, and one of them begins from the part that he knows and another continues with his part, and so on until they have recited through the whole book. For no one is able to memorize it in its entirety. It is told, however, that a certain man in Sidjistan about A.H. 300 had memorized all of it . . .³ Here, Mas'udi seems somewhat to despise the Zoroastrians because of their inability to memorize the whole Avesta, but it has to be remembered that the original corpus of the Avesta was many times larger than the Koran.

As far as the geographical extension of Pahlavi writing goes, inscriptions have been discovered on the coast of Coromandel and Travancore, which are attributable to the sixth and seventh centuries. Its persistence is testified to, not only by isolated phenomena such as the case of one, Guebre of Seistan,

who in the tenth century knew by heart the whole of the Book of Zoroaster, but also, and most importantly, by a monument in the Mazanderan, the funeral tower of Ladjim, dating from 1022, which bears a magnificent Kufic inscription surmounted by a Pahlavi text.

Arab tradition speaks of five Iranian dialects: Pahlavi, the dialect of western Persia; Deri, the speech of the court and the great cities; Farsi, current principally in the Fars used by the Zoroastrian clergy; Khuzi, the language of the inhabitants of old Susiana; and Siryani, spoken by the Nabataeans of Iraq. It should also be noted that, through the efforts of the Nestorians of Jundishapur, Siryani became a language of culture in Iran.

There were numerous dialects in the Near East which were not written, and this was perhaps the case with the Arabic of the Hedjaz. The written dialects are known from papyri, parchments and inscriptions from the first to the fourth centuries of our era. Greek and Aramaic were written in Palmyra; Aramaic in the kingdom of Edessa; Greek in Syria and the Hauran; and Nabataean in Transjordan, Sinai and northern Arabia. Nabataean was, in fact, an Aramaic dialect, and may have persisted up to the Hegira.

C. The Dialects of Southern Arabia

In southern Arabia, inscriptions are found in four dialects, the most important being Minaean, dating from the eighth century B.C., and Sabaeen and Himyarites, from the first century A.D. to the Hegira. The characters are not like the Phoenician and derive perhaps from an archaic Greek. From southern Arabia they passed into Ethiopia. In R. Dussaud's view, it was the strong movement of the great Arab tribes of the desert Syrian towards unification in the fourth century A.D., that led to the triumph of the Nabataean script and the decline, in consequence, of those of southern Arabia, which finally disappeared completely (except in Ethiopia) before the rising force of Islam. The south Arabian alphabet was responsible, as we have seen, for the emergence of the Ethiopic script, but the Abyssinians came to use the Sabaeen script. It is thus 'a syllabic script, the vowel being included in the form of the consonant itself'. It became known as Ge'ez, 'which became a written language, a learned one, with a great literary development'.

For the conduct of commercial activity there must have been scribes expert in the languages which had an alphabet: Greek, Aramaic, Nabataean, south Arabian, Ethiopic, Persian. Aramaic was adopted by the Syrian peoples as a cultural language. 'Syriac' was used to designate the Edessa dialect when 'Aramaic' had become synonymous with heathen. The fact of the persistence of Coptic in Egypt, and of Aramaic and Syriac in Syria, Palestine and Mesopotamia, is proof that, despite the growth of Christianity, the peoples there were determined to retain their autonomy vis-à-vis Byzantium.

Greek was an imported language, spoken neither by the masses nor by those members of the educated population who had not gone out of their way to

learn it. In Syria it had been abandoned well before the Arab invasion and Syriac had been furthered as a result of the Monophysite schism. The Syrians, whose speech had remained Aramaic, refrained from the use of Greek in documents. Place names, from the Arab occupation onwards, reverted to their old Semitic forms. The compilation of Romano-Syrian laws drawn up about 570 appeared almost immediately afterwards in a Syriac translation, a clear indication of the attachment of the population to the national language.

D. Syriac

So Syriac became, after the burgeoning of Monophysitism, the literary and ecclesiastical language. The first systematic work of the Jacobite Syrians was the *Peschitto*, an excellent translation of the Bible, with marginal glosses by Jacob of Edessa, which gave certain Greek readings and the exact pronunciation of words.² Other productions in Syriac were works of theology and history and translations of Greek philosophers and classical scholars. The language continued to be cultivated as a literary medium into the tenth century.

According to Pognon, most Syriac translations erred on the side of too great literalness. It would be too much to say that the Syrians had no clear translations, but, in most of those extant, the style is often obscure, the construction incorrect and words are used in a sense other than their normal one, faults which are usually indicative of an attempt to render the Greek text too literally. Moreover, when they did not know the meaning of a Greek word, the translators made no bones about transcribing it in Syriac characters, leaving the reader to guess what the barbarisms so perpetrated were intended to convey.

The works of the schools of Edessa, and of Nisibis, are based first and foremost on the *Peschitto*. The Jacobites had other later recensions, but not so the Nestorians, who remained faithful to the *Peschitto*. This Masora produced three kinds of works: copies of the Bible, punctuated and annotated with marginal glosses; treatises on punctuation or accents; and treatises on ambiguous words.

In addition to the intellectual influence they excited at Jundishapur after the closing of the school at Nisibis, the Nestorians were responsible for the spreading of Syriac as far as central Asia, through the activity, not unrewarded, of their missionaries among Turks and Mongols. One has not far to seek for evidence of this advance—the inscription in Syrian and Chinese of 781 from Hsi-an-fu, for example.

Changes in Writing and Pronunciation

The Nestorian-Jacobite rift led to modification of writing and pronunciation on both sides. Joseph Houzaya, a Nestorian of the school of Nisibis, had, in the middle of the sixth century, produced the first treatise on Syriac grammar, inventing a system of vowel notation and punctuation, worked out on the model of the Masoratic signs. Following the Arab conquest, 'writing

underwent a rapid change, two types emerging which no longer bore any resemblance to each other in consonant notation. They were complemented by different systems of vocalization, the Nestorians employing combinations of accents, the Jacobites vowel-signs.' (E. Tisserant.)³

Rubens Duval has singled out as surprising the extreme stability of the Syriac language, persisting as it did unchanged and almost stereotyped throughout the long centuries over which Syriac literature extends. This immutability arose from the fact that it was from its inception a literary language, subject to none of the transformation which usage brings about in a spoken tongue. Moreover, from the advent of Islam, Syriac was a dead language. It was preserved as a liturgical language in Maronite and Chaldean rites in Syria. The term *karshuni* was used to designate the Syriac script used in transcribing Arabic.

E. Arabic

Arabic, with southern Arabic and Ethiopian, belonged to a southern group of the Semitic languages. In spite of its parentage, it clothed itself in a northern form; the Aramaeans had an alphabet which passed via the Nabataeans to the Arabs, and gave rise to Arab, Kufic, and Naskhi calligraphy. (Pl. 13a, b.) The inscription at Nemara, dated 328, establishes that the Arabic script was a direct product of the Nabataean monumental script. It has in it numerous signs of change as, for example, in the ligatures.

'The stabilizing of Arab script dates from the Umayyads: it would seem that it was Hajjaj who introduced the diacritical marks to remedy the strange confusion arising from the use of identical signs for different sounds, and the three signs to represent short vowels.' (Gaudefroy-Demombynes.)

It is thought today that 'classical Arabic was a *koiné*, something never in fact spoken in quite that form, a compromise medium evolved almost artificially for thought and art, in a way comparable to Homeric Greek'. The ancient Arabs 'spoke dialects bearing close enough resemblance to each other for the Koran to be comprehensible to all'. The language of the Koran itself can never have been current oral usage.

Dialects in the spoken language were never obliterated, since they are still in existence today, but at the time of the preaching of Islam there was certainly a measure of fusion brought about through a literary language, as is evidenced in pre-Islamic poetry and the Koran. It would be childish to assume that the Koran sprang out of chaos. Even taking the Moslem view that the Holy Book is as eternal as God, there must have been consideration of it at the time it was revealed, hence the fact of its comprehensibility for at least the élite of Mohammed's entourage. This literary monument could alternatively be taken as the climax of a development. In that case, 'the old foreign elements, Aramaic and Persian, embedded in the Koran vocabulary, were probably Arabicized well before the seventh century A.D.'

The Place of Arabic in Islam

What Arabic stood for in the Islamic world has been expressed with eloquence by William Marçais: 'It was the adoption of the Arabic language as the idiom of conversation and of civilization. It was the exclusive use of Arabic to express what was felt and what was thought. It was the fact of belonging to the civilization of which this language was the instrument of expression, of being able to regard its literary and scientific production as a glorious patrimony, and to take its masterpieces for models. It was the desire and aspiration to belong to the world in which this language was spoken and written, to feel like it, think like it, to model the self on it in social and political, rational and effective life. It was, of course, in the nature of the situation, impossible to set religion in any context apart from it.'

Arabic, the divine language, was the liturgical language of Islam, the factor that linked all the scattered communities of varying spoken idioms. The language was an instrument of unity in the Moslem world as the Attic dialect had been in the civilization of Greece.

The eternal character and elusiveness of the text of the Koran had one direct consequence: Arabic remained the language of the religious life. For centuries it was the mould in which writers cast their ideas—religious, political, social, or purely literary. One of the merits of the Koran, then, looking at things from a point of view other than the religious, was that it established the canon of Arabic prose.

Following the conquest, Arabicization followed hard on the heels of religious conversion. The cultural unification of the Islamic world, that was so brilliant a feature of the first century of the Abbasid caliphate, is already to be seen in embryo under the Umayyads.

Little by little, the administration has become Arabicized. This set the essential seal on their new control for the authorities responsible. Nevertheless, it was not an impatient gesture, for it was accomplished with a complete absence of haste and with a sage circumspection. Enforcement of Arabic as the official language, indeed, was delayed by the Umayyads for fifty years. Greek in the west, and Persian in the east, had remained the languages of the chancelleries.

Arabic became the idiom of culture and of the Islamic community, and Islam and Arabic thus entrenched themselves, to a greater or lesser degree but always simultaneously, in the conquered areas. Faith and language subsequently underwent modification, in uneven measure, according to the cultural or political importance of the countries remaining under the Islamic aegis.

In Egypt and Syria, where a loyalty to the local unit prevailed rather than to nation or fatherland, the local tongues, Syriac or Coptic, the sole external symbols of Monophysite opposition, had nevertheless, a century after the conquest, given perceptible ground to the language of the Koran. In Egypt there was a reversion of place names to the Coptic, a turning away from the Greek names, which were detested as being of colonial inspiration; and these

national names have survived to the present day, transliterated into Arabic as they stood.

The papyri make possible the establishment of certain dates. In 706, the order went out that all administrative documents in Egypt should be drawn up in Arabic. The first Greek-Arabic bilingual papyrus dates from 643, the last from 719, with protocols still bilingual in the year following. The date of the last papyrus in Greek only was 780, of the earliest one in Arabic only, 709.

Discussion as to the late use of Coptic in Egypt is apt to prove endless, but there is a relevant statement which is worth recording. It was made by the historian of the patriarchs of Alexandria in the tenth century, and runs as follows: 'I have solicited the aid of Christians, who have translated for me the facts they had read in Coptic and Greek, into Arabic, so generally prevalent in Egypt today that most of its inhabitants are ignorant of Greek and Coptic.'

Athanasius of Kus, in the eleventh century, wrote a Coptic grammar in Arabic, proof that Coptic was still being taught. The last historical inscription of importance in Coptic is dated 1173, with other inscriptions traceable up to the middle of the fourteenth century. It is clear, however, that Coptic ceased to be understood at the time when we find established philologists publishing dictionaries and grammars with Arabic as the basic and explanatory medium in the middle of the thirteenth century.

The Development of Literary Arabic

It was a fact of some significance in the history of the written language that a Christian Arab literature existed, and also a Judaeo-Arab one, in Syria, Egypt and Mesopotamia. This was responsible for the introduction of dialect terms into literary Arabic. Egypt was the 'chosen land' of Christian Arab literature, a fact which is of interest here, not in respect of the assessment of its literary value, but in virtue of the desire shown by leading grammarians not to lose contact with the Arab world in the course of their learning and the teaching of Arabic.

'Three things were to have a decisively important influence on the development of Arabic language culture: the foundation of the schools of grammar, the formation of the schools of jurisprudence, and the translation of works from the Greek.'

The Arabs were very soon interested in grammatical studies and in the analysis of their language, the material for their first endeavours in this direction being supplied by two kinds of writing: the sacred text of the Koran and pre-Islamic poetry. It should not be forgotten that the study of grammar was the indispensable basis to Koranic exegesis. It was vital for the Islamic community that agreement should prevail over the canonical readings of the Holy Book, which involved recitation rather than visual comprehension. There must be no mutilation, the text must be read correctly and understood, its meaning must be interpreted faultlessly in its entirety. Examples were sought in the old verses, the precious legacy of the ancient Arabs.

Classical Arabic

Classical Arabic attains perfection in its carefully elaborated grammar and its rich vocabulary. The manner of writing it, however, constituted an insuperable obstacle for the mass of the population, since understanding depended on keeping the entire range of grammatical rules continually in mind. Literature was thus bound to become the exclusivity of the teachers of religion and not a vehicle of the popular imagination. Far from adapting the common language, literature seemed to draw its inspiration from some secret code since there were no vowels, forfeiting thus all chance of reaching not only the masses, who were still illiterate, but the whole of middle class intelligentsia. In general, literary production recalls that of the Hellenistic period, remaining works of the study, the picturesque phrase taking precedence over the observation of nature, the writing overloaded with erudite allusions.

From the middle of the eighth century, Arabic stands out not only endowed with an ancient and scintillating poetry, but also with a philology, a historiography, an established legal language, an administrative technique elaborated in offices and an educational organization. In addition, Ibn Mukaffa had shown that Arabic had further potentialities hitherto unsuspected. In the writing of this author the curt phrases of the old Semitic gnomic utterances give way to the leisurely, subtle development of agreeable banalities. The earlier writers' short sentences, crudely juxtaposed, are replaced here by a complex and articulated style, carrying, with a relative ease and only occasional loss of equilibrium, a whole burden of incident.

Among the civilized languages, Arabic has played a part peculiar to itself, in consequence of its inherent possibilities as a vehicle for ideas. It received the imprint of a universalist religion—Islam—which was almost liturgical, the Koran having been its first prose production; for only in prose does the expression of ideas shake off the magical constraints of primitive versification. The peculiar contribution of Arabic has been the ability to condense and crystallize in the abstract, and is the fruit of the grammatical originality of Semitic stretched to its apogee. Aramaic played a civilizing rôle which began well before Arabic and the scribes of the Persian Achaemenian empire had undergone too strong a distorting Indo-European influence (which, in the last resort, was Christian-Greek) to fulfil this particular function. It was in Arabic that the original articulation had been in essence preserved phonetically. In Arabic, Semitic grammar had become aware of itself; there were fixed three-letter roots, a verbal syntax hingeing, not on the agent, but on the action, a tri-vocalic morphology (to learn to vocalize was to learn to think; the vowel dynamized a consonantal text which, without it, was amorphous and inert), with four single inflexion nouns and verbs, morphology being the dominant factor in relation to vocabulary and syntax.

'There can be no question,' writes Father Abd al-Jahl, 'but that from very early on, the purity of the language and the codification of its laws were seen as pressing concerns. Non-Arabs were being converted to Islam; the Koran

had to be recited to them; and all inroads of imprecision must be guarded against. Moreover, everyone, Arab or otherwise, must in any case, if they were to understand the Holy Book, have a thorough understanding of the language in which it had been revealed. Arab philological studies were thus almost certainly motivated by religious needs. But the work of linguistic systematization and codification was accomplished under foreign influences, in particular Greek science, and perhaps, to some extent, the phonetic system of India. Hellenistic influence reached Arab philologists via the Syriac-Persian school of Jundishapur, where Nestorian Syrians had introduced a knowledge of Greek philology, Aristotelian logic, and Stoic definitions.' The possibility is not, however, to be ruled out that these influences post-dated the first essays which the Arab grammarians made on their own initiative in the study of their own language.

The Schools of Basra and Kufa

Louis Massignon has demonstrated very clearly the difference of viewpoint between the Basra and the Kufa schools of grammatical thought, and the swirling surge of ideas this gave rise to: 'Arabic grammar was born in Kufa with a school of empiricist observers, concerned primarily with the notation of singularities, anomalies, and divergences, the sum of which should constitute an atomism of grammar. The rival school which subsequently grew up in Basra advocated the contrary procedure of detection of norms and analogies; an opposition paralleling that in Greece between the analogical school of Alexandria and the anomalistic one of Pergamon. On the one hand there was Tamimi, the Arab colony of Basra, by temperament realist and critical, whose preferences lay with logic in grammar, realism in poetry, critical evaluation in *hadith*, and the Sunnism of Mou'tazilite and Kadarite tendency in dogma. On the other stood Kufa, Yemenite, temperamentally idealist and traditionalist, leaning towards exceptions in grammar, Platonism in poetry, Zahirism in *hadith*, and Shiism with Murjiite tendencies in dogma.'

Khalil ibn Ahmad (c. 786) was one of the great men of the school of Basra who produced a treatise on grammar, invented the system of prosody and composed the first dictionary. Sufficient indication of his grammatical acumen is to be seen in the fact that his principal pupil was the great Sibawaih. Khalil is said to have conceived the idea of his metrical system while listening to the rhythm of a smith's hammer on the anvil. In his dictionary, he classified words alphabetically, arranged in an order based on the position of the organs used in their articulation—the gutturals, the palatals, the dentals, the 'sh' sounds and sibilants, the labials and semi-vowels.

This classification, very close to modern ones, was never adopted by Arab lexicographers. Their dictionaries classified roots according to rhymes, that is to say, according to the third radical. They took their examples from the ancient poets, and, in general, excluded all dialectal or technical terms. The voluminous glossary of technical terms of the eleventh century made by the

Spaniard, Ibn Sida, is a 'gigantic compilation from which his own Andalusian Arab dialect, so rich in nuances, so profoundly marked by borrowings from Berber and most of all from Romantic, is completely excluded'. To Sibawaih fell the task of, in the words of Ibn Khaldun, 'reducing to a system the rules of Arabic, and making of them a branch of science of value to posterity'.

The Language of the Bedouins

We are told that Sibawaih owed his impeccable knowledge of the language to spending much of his time in the company of the Arabs of the desert. The purity of the language of the Bedouin was to become the major thesis of Arab philologists and poets. The Transoxanian Turk, Jauhari, said: 'I gained acquaintance with the language by oral transmission, from acknowledged masters, perfected it by personal study, and conversed with the Arabs in their own language in their desert habitat.' The *hadith* compilers manifested the same respect as grammarians for the speech of the Bedouin. Shafi'i had passed some years in the desert to perfect his language. Jahiz had already said: 'If you hear an anecdote told by Bedouins, take care in reproducing it to keep the inflexions and exact pronunciation of the words; for if you introduce changes by way of faults or the pronunciation habits of those newly come to Arabic and of town-dwellers, you are incurring a grave responsibility.' Mutanabbi's masters were true Bedouins, 'born and raised in the desert, who, in the grazing season, sought out places watered by the rain, and then in the hot season returned to the wells of their habitation; whose occupation was the tending of their camels, and whose nourishment was camel's milk. The language of these people was the pure idiom of the desert, with scarcely a fault or trace of vitiated pronunciation.' It was at bottom a religious matter; the language of the Koran was preserved by authentic Arabs, 'guardians of this language'.

Scientific and Medical Vocabularies

The years between 850 and 950 saw the formation of the Arabic anatomical vocabulary, in the period of translation of Greek medical works into Arabic, either from Greek directly, or from versions in Syriac. Sometimes the Greek word was simply transcribed, sometimes translated; sometimes Arabic words of vague non-scientific meaning, had a precise scientific meaning assigned to them. The importance of the school of translation of Hunain and of disciples, who gave the language its scientific terminology, is demonstrated elsewhere.

Arabic in the scientific and philosophical fields was of an importance equal, if not superior, to Latin. A vocabulary had then to be created; this was a matter of less difficulty where translations were made from versions in Syriac, like Arabic, a Semitic language. The oldest Syriac-Arabic dictionary was made by the most celebrated doctor of the Bakhtyashu' family, at the beginning of the eighth century. The Syrians, however, had from the first not aimed too high, but had confined themselves to transcribing the Greek work, sometimes none too precisely. By the eighth century, at all events, Arabic had emerged as a

very rich instrument of varied and flexible vocabulary, and clear and erudite syntax.

'Arabic, with its consonantal structure and triliteralism, its verb-centred sentence rhythm, is possessed of an astounding power of evocation. Its vocabulary, grouped by roots, and the extreme flexibility of its verb formations, enable it to convey, by the addition, the repetition, or the substitution of a single letter, nuances of meaning going far beyond the explicitly enunciated thought, which there can be no hope of rendering adequately in translation.' (Louis Gardet.)

Philosophic translations, particularly of works of Aristotelian logic, were made with extreme care. It is clear today that the great translators had a perfect knowledge of the texts they rendered into Arabic, and that in Kusta ibn Luka in particular they had a great Hellenist amongst their number. Of this whole category of writers in philosophy, science, and medicine, the remark is true: 'A writer's country is his language.' Arabic, henceforward has a double character; it was at the same time 'the language of the Islamic religion and the language of the secular transmission of the scientific disciplines'.

Biruni's comment is understandable: 'It is in Arabic that the sciences have been transmitted, by translation, from the four quarters of the world; they have received there embellishment, and insinuated themselves into men's hearts; the beauty of that language is now with them in our blood. And true though it may be that every nation likes to use for adornment the loved language of affectionate and friendly converse, yet I can judge only from myself and my native tongue, that of Khwarezm, and it seems to me that a science would be as astonished to find itself enshrined there as a camel in the rampires of the Ka'ba or a giraffe among thoroughbred horses. And when I compare Arabic and Persian, two languages in which I am at home and fluent, I must confess to preferring invective in Arabic to praise in Persian.' To merit Biruni's eulogy, Arabic must surely have found itself sufficiently strong to impose itself as the language of civilization.

During the first two centuries of the Abbasid caliphate, Persians were to be welcome everywhere so long as they consented to use Arabic for official or literary purposes. Thus, wherever Islam had triumphed, Arabic had established unquestioned predominance, and authors writing later in Persian or Turkish recognized that Arabic had a certain primacy. There should be no mistake in this connection about the *shu'ubiya* movement; this revolt engineered by those not of Arabic origin, or more simply 'scribe snobbery', was engineered—brilliantly—in Arabic.

The Triumph of Arabic

The end of the tenth century saw a civilization in being that was truly Arabic; the outcome of the successive and persevering efforts of the peoples, of whatever faith, who had lived in the immense area won for Islam by conquerors who were all, in the early years, Arab. It was no mean claim to glory

for Arabic language culture that it stimulated and recorded the contribution of the peoples whom the Arabs had conquered and then drew into their community life. Islam had at this period, the attacks of the *shu'ubiya* notwithstanding, achieved an interracial intellectual integration.

Jehuda ben Kuraish, a Jew from Tahert in north Africa, stands out in the late ninth century as a sort of philological pioneer. He had to his credit a treatise in Arabic offering a systematic analysis of the affinities of the Semitic languages, which, he had perceived, shared the same basic linguistic principles. Later, came the polygraph, Mas'udi, to announce that the language of Adam had been Syriac, with the further declaration that the idioms of the Syrian peoples differed only in very minor respects. Hebrew was one such idiom, and Arabic, after Hebrew, the one nearest Syriac; and between Arabic and Hebrew the difference was not considerable.

Here was an Arab writer in line with the traditions of the Syrians, for whom Syriac was the original primal language common to all men before the confusion of Babel. Moslem expositors would have it that Arabic and Syriac came to Adam as a revelation and he inscribed the characters on clay tablets. In this view, Arabic was no human creation, but a product of divine inspiration. The Spanish writer, Ibn Hazm, is also aware of the linguistic kinship of Syriac (the mother-language, in that it was, according to him, the tongue of Abraham), Hebrew (spoken by Isaac) and Arabic (spoken by Ishmail). Ibn Djinni, who died early in the eleventh century, was almost alone among Moslems in seeing language as a humanly evolved convention.

F. Persian

Notwithstanding the pre-eminence of Arabic, the influence of the culture and opinions of Persia was felt to a considerable extent in the eighth and ninth centuries in the intellectual circles of Mesopotamia, the hegemony of Persian thinking in the Islam world having developed in Arabic. A well-known passage from Ibn Khaldun puts the matter succinctly: 'The first masters of the art of grammar were Sibawaih, then Farisi, men who still knew by heart the sacred traditions and had preserved them intact in their memory, and by so doing had conferred untold benefits on the Muslims. Most of the grammarians were Persian or had been assimilated into that race by language or education. All the great scholars who treated of the fundamental principles of jurisprudence, all those who distinguished themselves in dogmatic theology, and most of those who devoted themselves to the exegesis of the Koran, were Persians. Only men of that race were ready to devote themselves to the preservation of knowledge and to its committal to paper. As for the intellectual sciences, these made their appearance in the Muslim world only after scholars and authors of scientific treatises had begun to constitute a class apart. The teaching of all the sciences then became the special province of the Persians, the Arabs neglecting it entirely.'

The tenth century saw the rise of a separatist tendency of particular moment: the reawakening of the Persian national idiom and its disputing successfully the Arabic claim to the prestige of being the 'imperial tongue'. Among the mass of the people, Persian had, almost certainly, remained a living spoken medium, but now, when Aramaic, Hebrew, Syriac and Coptic had almost disappeared or shrunk within the confines of the liturgy, Persian emerged once more, and splendidly, as a literary language. Arabic was none the less to retain for a long time yet its stature as a language of culture. It was 'lovingly studied; it was the scientific language *par excellence*; there were a host of ideas to which Arabic alone seemed capable of giving clear and precise expression'. Even as Persian re-emerged with a 'galaxy of poets to assure it everlasting renown, that language of the people, offspring of the old Pahlavi that new writers were forging on their anvil, had lost many words, to replace which it had to borrow from Arabic'. At the beginning, then, Arabic was still the language of revelation, religion, science, diplomacy and social relations.

In most of the countries which the Arabs conquered, where Islam prevailed, there was a severance of historical continuity, even Christians and Jewish minorities adopting Arabic as their medium of cultural, then of religious, development. Events in Persia, however, where Zoroastrian works in Pahlavi were giving way to Iranian epics in the new idiom, were different. The reasons for these developments were various. In Iraq and Mesopotamia, as in Syria (as Gaudefroy-Demombynes points out), the speech of the people was, with certain dialectal variations, Aramaic, a Semitic language still close to Arabic and constantly interacting with it. In Persia, where Arab occupation was of lesser extent, Iranian remained the current linguistic coin, and when Pahlavi perished altogether, the country developed its own literary language, Persian, to which Islam made a contribution which included, apart from the script, a great many abstract Arabic words.

It is established, however, that a great many different dialects which suffered no Arabic contamination whatsoever continued in use throughout Persia. In Bukhara, at the beginning of the eighth century, religious worship was conducted in Persian. By the same period, the Farsi dialect was in use at Balkh. As early as the first century of the Hegira, Hasan Basri had no hesitation in dropping into Persian in a commentary on the Koran when it was a question of converting a disciple. The school of Abu Hanifa authorized the recitation of the Fatiha in Persian. At about the same time, the streets of Kufa and Basra, the two 'Arabic language factories', resounded primarily with voices speaking Persian. 'Bistami used to make use of Arab liturgical terms within a context of ejaculatory prayers in Persian dialect.' (Massignon.) Elsewhere, Tabari cites two passages of verse in Persian about events of the year 737. In the anonymous *Relation of China*, we may note Persian words which have undergone a measure of phonetic change, indicating that they had already been Arabicized, and, in addition others which, perhaps, were still undergoing change. In the tenth century, the commercial language of the Oman coast was Persian. 'The lan-

guage of the Dailamites in the Arab period was a northern Iranian dialect fairly distinct from Persian (Farsi), which was a dialect of the South, and in particular of the province of Fars. Persians must have had some difficulty in understanding this *patois*.' (Minorsky.)

According to Barthold, the Iranian dialects gradually lost hold, and a common Persian literary language developed, which was placed at the service of the Iranians of Iran and Turkestan. The languages hitherto in use among the Iranians of central Asia, among them the Sogdian literary language, gave way to the language now known as Tajik, very little different from Persian. Persian's only linguistic rival was Turkish and, in the conflict between them, the former was as a rule the loser.

Persian was thus to play its part as a noble language in the use of Moslem civilization. Was it that poets tried their hands at verses in the usual language of Persia? What was this dialect that became a literary medium? Want of documentation throws us back on conjecture. According to Christensen, the original dialects of Khurasan had long since disappeared in consequence of invasions and modern Persian can be traced, as old Persian and Pahlavi, to a dialect of the south-west. The resurgence of Persian as a written language was to have more far-reaching effects, for Arabic had never been widely adopted among the common people. Persian had persisted as the everyday medium in the rural areas, largely as a result of the prevalence then of Zoroastrian belief.

Dialects persisted. Pahlavi is said to have been spoken at Zenjan, in Media. According to Idrisi, the inhabitants of Susiana spoke a dialect of their own as well as Arabic and Persian; and Kuf tribes along the Afghanistan-Baluchistan frontier also had their special idiom. According to Yakut, a language known as Azeri was spoken in Azerbaijan, which the inhabitants alone understood. In Kharezm, an Iranian dialect was current before the arrival of the Karakhanid Turks, and, from the twelfth century, Arabic ceased to be generally understood in Persia and Transoxiana. In the Caucasus, Ibn Haukal and Idrisi noted numerous dialects, very different from Persian. Polylingualism was normal in frontier areas: in the eleventh century at Akhkatv, for instance, west of the lake of Van, Arabic, Persian and Armenian were all commonly spoken.

For a long time before this, teaching in the *madrassas* had presumably been bilingual. At any rate, Djubbai, in the ninth century, wrote a commentary on the Koran in the Susiana dialect, and the late ninth century also saw Harawi's production of the first Persian pharmacopoeia.

There were always Arab dialects in existence; the changes that the passage of time produced in the nationality of the military contingents must have induced some peculiar combinations. In the tenth century, writers seem particularly to mention them. They were accepted as normal usage, but it never occurred to Arab-speaking people to think of classical Arabic as a dead language. The most interesting sidelight on this is provided by the essayist, Kali. Journeying from east to west, and passing through eastern Barbary, he is astonished to note how,

as he proceeds westward he finds Moslem Arabic deteriorating, and wonders whether, by the time he gets to Spain, he will be able to make himself understood without an interpreter.

On this question of tongues, the geographer, Mukaddasi, expatiates at length. He begins in his preface with a list of alternative synonyms, though without any indication of provenance. Then he surveys the Arabic peninsula: at Sohar on the coast, they speak Persian; in the San's area, an incomprehensible tribal dialect; in Aden, they favour curious idiosyncrasies of pronunciation. Iraq boasts numerous dialects; the inhabitants of Kufa have the best language through living close to the desert, and the 'Nabataeans' of the Lagoons have 'neither language nor intelligence'. The language of upper Mesopotamia is purer than that of Syria, especially at Mosul. Egyptian speech is negligent and undisciplined; the Christians speak Coptic. The language of Andalusia is Arabic, but a form of it which is quite incomprehensible to Arabs from the east and different from that spoken in other regions; the Spaniards have another language rather like Romanic. A long section is given to the faults of pronunciation and the dialectal variants of eastern Persia, the Caspian regions; Dailam and Kerman; and he makes a great point of the bilingualism (Arabic-Persian) of the inhabitants of Susiana. The Mahra region, and the island of Socotra, spoke a dialect derived from southern Arabic speech, incomprehensible to anyone from mid-Arabia, as several medieval Arab writers attest. Idrisi declares that in the eastern part of the Hadhramaut, the language was so corrupt that the inhabitants could be understood only with difficulty; he suggests that here is the old Himyarite tongue. In the twelfth century, Jawaliki, a lexicographer, drew up a list of foreign words currently in use in Arabic.

We should not be surprised at the quality of the Arabic style of writers of Iranian origin; their usual, everyday language being Persian, they were the better able to avoid dialectal formations. 'There is general agreement,' writes Ibn Hazm, 'on a point now regarded as established, namely, that Syriac, Hebrew, and Arabic—the language of Modar and Rabi'a, not that of Kimyar—are one language, which has undergone some modification with the changes in habitat of those speaking it. The languages took on blurred edges, as happens with the speech of the Spaniard when he tries to imitate the accent of Qairawan, or of a man of Qairawan, when he tries to imitate that of the Spaniard, or of a man of Khorasan when he tries to imitate the accent of either Spain or Qairawan. As far as we are concerned, we must say that for us to listen to the speech of the people of Fahs-al-Ballut, one night's march from Cordova, is like listening to another language, quite other than that of Cordova. The same is the case in many other countries, and it is most certain that proximity to a foreign people produces changes in a language perceptible to any observer.'

Such was one reason for dialectal contamination; an Arab writer later puts forward another: 'After the eleventh century, education was neglected, following the suppression of several state schools. The original language survived in its purity among the clergy, the nation's scholars, and all those who could read

and write. The corrupt language did not take long to become the spoken language of the people.'

Ibn Khaldun showed a sound understanding of the expenditure of effort upon which Arabic depended for its preservation. 'When foreign peoples,' he wrote, 'like the Dailamites, and after them the Seljuqs, had made themselves masters of the East, and other non-Arabic peoples, the Zenata and the Berbers had taken power in the West, all the Islamic kingdoms were subject to foreign rule. Such was the ensuing corruption of the Arabic language that it would have disappeared altogether if the Moslems had not laboured to preserve it with that same zeal they gave to committing to memory the Koran and the traditions concerning the Prophet.' At all events, from the eleventh century onwards, at least in Iran and Anatolia, the study of Arabic was a 'higher education' activity—one might almost say, a subject for specialist scholars. We may say, then, that Arabization went deeper among peoples of Semitic tongues; while in Iran and Spain, for example, the conquerors did not succeed in completely Arabizing the population.

G. Spanish

In Spain, in the ninth century, native writers turned eagerly to the production of works in Arabic and wrote some excellent verse in it. From the Christians went up a cry of alarm: 'They have forgotten even their language—in a thousand of us there is scarcely one who could write well to his friend in Latin.' So rapid was the process of Arabization that Eulogio is recorded already as reproaching his co-religionists for neglecting Latin, and Latin manuscripts begin to have marginal notes in Arabic. The Spanish population, of necessity, used Arabic in religious or administrative matters, but Romanic in everyday and social life. Arabic, however, had its dialectal as well as its classical form. In the tenth century, Arabic was studied and Arabic belles-lettres cultivated not only by the élite but also by the people. 'In Africa,' writes H. Pirenne, 'Latin disappeared in the face of Arabic. In Spain, on the other hand, it persisted, but without the stabilizing foundations, there being no longer any schools, monasteries, or educated clergy. The defeated population lapsed linguistically into a patois that was no longer written—the beginning of Spanish.'

Bilingualism had become a necessity in any case, since parents who wanted to see their children in the service of the state had to ensure that they knew both Arabic and the national language. Medieval Spain was a sort of Tower of Babel. There was, first of all, Arabic, and alongside it the Romanic speech of the indigenous population, which was derived from Latin. Alongside these again were the dialects that continued to be spoken by the Berber contingents who were often brought in to fight in the peninsula. Finally, there were the Jews, who continued, at least where their religion was concerned, to use Hebrew. Pharmacological treatises in the eleventh century often had set against the Arabic terms the Spanish terms in use among the people, and the Berber equivalents as well.

Another form of bilingualism is indicated by the use of dialectal Arabic in popular verse. There were peasant craftsmen in Andalusia who liked to make rhymes about their occupations and a writer informs us that a ploughman at his task could, if called upon, make up verses on almost any subject that might be proposed. This popular poetry in Spanish found its most remarkable representative in Ibn Kuzman. Kuzman worked to some extent in the old *mowashshah* style, but in the main preferred the *zajal*, which was based not on quantity but on accent. The *mowashshah* consisted of ten or so verses at most, with an introductory rhyme at the beginning repeated at the end of each verse. The *zajal* was distinguished by the fact that it was written in the Hispano-Arabic dialect, not in the classical language.

In north Africa, Latin may have been retained in certain Christian communities up to the eleventh century, probably as the liturgical medium; a few funerary inscriptions survive from this period.

H. Berber Dialects

The Berber dialects 'were continuations of the old Numidian and Libyan language, the language of Massinissa and Jugurtha'. These Berber tongues among which linguists discovered affinities, were so different that the people concerned could only with difficulty understand each other. Berber was 'a confused collection of related dialects', which became more and more widespread in the countryside after the Arab conquest, and induced in the population a sense of nationality. It was, as it were, an anti-Arab linguistic barrage; a 'childish language, poor in ideas and poor in images, unusable as a medium for any kind of scientific speculation'. (Laoust.)

When the Berbers did write their language, they used Arab characters, but manuscripts are rare, and at no time did the language have any literary pretensions. There did exist an Ibadite literature in Berber, comprising legal and theological treatises and poems. The Rustamids spoke Arabic and needed Berber interpreters. Preaching in the mosques was in Berber, and it was in Berber that the Ibadite chancellery of Tahert addressed its communications to the sheiks of the Maghreb. There are Ibadite chronicles in Berber, and, of course, the Berber Koran of Salih ibn Tarif; there are also collections of proverbs.

The Hilal invasion did great damage to the Berber dialects and caused some of them to disappear entirely. It has been observed, too, that the real Arabization of Barbary, which took place after this invasion, was the work of tribes speaking different dialects from those of the first occupiers.

The Almoravid period saw Berber dialects still numerous in Morocco, where Arabization was taking place very slowly. It was in a Berber tongue that propaganda was conducted by the Madhi Ibn Tumert, whose preachings and writings were all in that language. 'It was for him the language of everyday, the language of insult and imprecation.'

There were still areas in which Berber dialects, albeit with an increasing ad-

mixture of Arabic, remained the speech of the people. These give us some idea of the linguistic conflict that extended over a period of more than twelve centuries—Morocco, Constantine and Tripolitania being the areas in which Berber held out longest.

I. Turkish

The advent of the Turks meant vast changes for the Moslem community. The Syrians and Egyptians had accepted both Islamization and Arabization. The Berber, converted to Islam, albeit in heterodox fashion, had already proved hostile to Arabicization and imparted to the western part of the Moslem world a distinctive character. The Persians, when they came to power, seemed at this early Abbasid period to have rallied to the banner of Arabic, though this proved, in fact, to be something of a pretence.

The Turks, from their pagan state, were brought round quite quickly to the Islamic faith, but they steadily resisted Arabization, displaying an unwavering attachment to their national solidarity. The Turkish 'Emirs of Emirs', as later the Mameluke sultans and officers spoke Arabic badly and, for fear of making mistakes in it, used it as little as possible.

In Kharezm, an Iranian dialect was spoken and written up to the ninth century, when the area adopted Turkish. It should be said that according to Jahiz 'between the Khorasan languages and Turkish differences were no greater than between dialects, as for example between the idioms of Mecca and Medina'.

These eastern areas of Persia were settled between the ninth and the eleventh centuries by the Oghuz, Quarluq and other nomads—a process bringing with it the Turkization of the static Sogdian populations; a slow process but one culminating by the thirteenth century in the almost complete Turkization of Kharezm.

As was the case with other languages, it was the conversion of the Turks of central Asia to Islam that led to the adoption of the Arabic alphabet by the Turkish language. This took place in the oldest Moslem Turkish principality, the Karakhan. The old Uyghur alphabet remained in use for some time, however, as the special script of the court, and is found on some coins.

The Ughuz dialect, well before the tenth century, boasted a rich popular literature. 'The written literary language evolved out of early attempts to write the Turkish which was spoken by the various groups established in Asia Minor in the thirteenth century. It was based on several dialects, which in fact did not differ from each other to any very marked extent, and still less so as conveyed in Arabic script.' It can justly be said that, in the Turkish Islamic world of the thirteenth century, the different literary languages had yet to emerge with sufficient individual clarity. The language of the Seljuq Turks was scarcely to be distinguished from what is known as old Osmanli. As far as standardization and the mingling of the dialects was concerned, these were processes much favoured by the nomadic, or at least semi-nomadic, way of life which long persisted.

The earliest Islamic work in Turkish was produced in central Asia. 'In 1070,' writes Barthold, 'there was composed at Kashgar for the Khan of that city by one Yusuf, chamberlain at his court, a native of the town of Balasaghun, a didactic poem in Turkish, with the Turkish title *Kutadghu-Bilig*, signifying the knowledge that leads to happiness, the knowledge filled with happiness, and the knowledge befitting a sovereign. Yusef declared in his preface that until this nothing had been created in Turkish.' This clearly demonstrates the rapidity with which, following the conversion to Islam, oblivion had swallowed the literary works in Turkish which were of Buddhist, Manichaeian, and Christian inspiration. It is not known whether the *Kutadghu-Bilig* was set down in Uyghur or Arabic characters.

Anatolia

Asia Minor had been Hellenized and remained so until the Turks invaded it in the eleventh century. After the battle of Mantzikert, they occupied Anatolia, and the Turkization of Asia Minor began at the expense of Hellenism. 'It should be noted in this connexion,' writes René Grousset, 'that of the regions conquered by the Seljuq Turks by which they set undoubtedly the greatest store, none became completely Turkish. Iran remained Iranian, and Syria Arabic. By a twist of destiny that nothing seemed to have foreshadowed, the region that did become Turkoman was that lying beyond the bridge of Iran, the formerly Greek or Greco-Armenian territory of Anatolia. One perceives here the difference between conquest and settlement. But perhaps the fact that it was settlement that took place in Anatolia was due simply to the fact that the central part of the plateau was steppe, a potential Turkestan.'

Turkish in the earliest extant Anatolian documents of the thirteenth century was written in Arabic script. In Asia Minor, the Seljuq state retained Arabic as its official language until the thirteenth century. Turkestan in the twelfth century had changed to Persian as the medium of instruction, but retained Arabic as the language of the law.

The mystic, Sultan Walad, son of Jalal ud-din Rumi, wrote verse in the last half of the thirteenth century in both Persian and Turkish, but also 'in Greek written in Arabic characters, the only works composed in the dialect form of Greek spoken in the region of Konia'. The same period saw Saadi writing verse in Persian, Arabic and Turkish. And on the lower reaches of the Syr-Daria lived a writer so at home alike in Arabic, Turkish and Persian that the three idioms 'were here set on a level of equality as the three literary languages of the Islamic world'. From the entourage of the last shah of Khwarezm came a great study of the Turkish language in Arabic, which complemented the classic eleventh-century work in this field of the first of the Turcologists, Mahmud Kashgari.

J. The Jews

Certain linguistic minorities remain to be spoken of, notably the Jews. Saadia,

the Gaon, rector of the famous Academy of Sura, was a great philologist; he might even be called the founder of Hebraic philology. The Babylonian Jews spoke Hebrew and Aramaic, and the work of Saadia is evidence that a knowledge of Arabic was by then common in the Mesopotamian community. Saadia produced a great dictionary and a grammar; he also translated into Arabic and annotated in that language the whole of the Old Testament, and wrote his own religious works in Arabic. The importance of Saadia is thus already evident, and becomes even clearer in the light of the fact that Jewish cultural civilization was about to leave Mesopotamia for Spain. It is noteworthy too that, through Saadia, contact was established between Jews and Samaritans; within two centuries, the Samaritans had forsaken Aramaic for Arabic in divine worship.

At the other end of the Moslem world, the Umayyad minister, Hasdai, was offering encouragement to the grammatical study of Hebrew and had had all works of value on that language brought from the east.

Marwan ibn Janah was a scholar deeply versed in both Arabic and Hebrew. The greatest Hebrew philologist of the Middle Ages, it was he who put Hebrew studies on to a sound basis. His grammatical work falls into two parts, the one treating of pure grammar, the other of lexicography. Arabic was the language in which the Jewish Ibn Gabirol (Avicebron) wrote a philosophical work, *Fons Vitae* (which was inspired by neo-Platonism) while composing at the same time poems in Hebrew which were to become part of Jewish ritual. Maimonides wrote all his works, with but a single exception, in Arabic, though he could have written all in Hebrew. And, following the example set by these great predecessors, the Jewish mystic, Bahya ibn Paquda, chose Arabic as the medium for his mystic works, which derived inspiration too from Islamic ascetic writings.

This accession of non-Moslems to Arabic did not counterbalance losses. Syrian and Coptic had disappeared in Syria and Egypt; the Arabs had been successful where neither Romans nor Greeks had been. But Christian reconquest in Spain, the re-adoption of Persian in the eastern part of the caliphate, and the arrival of the Turks in the countries subjugated by the Seljuqs and their vassals, all worked to narrow Arabic down to being a language of religion and theology. The Arab-speaking world could see in such restriction a kind of privilege, recalling the divine origin of the Revelation.

In upper Mesopotamia, the Kurds spoke a western Iranian language differing in some respects from Persian—a language, with some fifteen or so dialectal variants. Further south, a Gnostic sect retained its language—Mandaean, an Armenian dialect—which had remained free from the admixture of either Hebrew or Greek. ‘This sect preserved its written literature, of great significance for the religious history of the Near East.’

To the south of Egypt, the Nubians had, since their conversion to Islam, used Arabic as their literary language, but had preserved also various dialects, in which ‘are to be found such features both Hamitic and Sudanese’ as

to lead to consideration of them in some quarters as 'a link between the two groups'.

4. EUROPE AND BYZANTIUM

It is in this linguistic field that the period under consideration is particularly rich, for between 400 and 1300 there emerged, from Latin and the primitive Germanic and Slav tongues, the majority of the European languages which were later to spread throughout the world. Historians generally have paid surprisingly little attention to this supremely important phenomenon. Philologists, on the other hand, have carefully examined the evolution of the various languages, and excellent comparative studies have been carried out by men like Walter von Wartburg, or W. D. Elcock on Romance languages and Fernand Mossé on the Germanic. A great deal of information has thus been assembled and should be incorporated into a proper historical synthesis. All that can be given here is a rapid and incomplete introductory sketch.

A. Before the Invasions: Latin and Germanic Languages

Latin

Classical Latin. Roman conquests created a vast linguistic union—that of 'Latin Europe'. Latin was spoken almost exclusively from Spain to England and Rumania, and to the west and south of the Rhine and Danube. The fact that a few other languages, such as Celtic in the British Isles and Basque, which was far more widespread than it is today, still persisted, and the fidelity of many subjects of the Empire to their pre-Roman tongues, which was more tenacious than was previously thought, do not modify this situation to any great extent. However, if we examine it a little more closely, we find that this linguistic union was subject to certain real limitations.

All those who have received a classical education based on Latin and Greek know to what extent the classical Latin of literary works differed in its basic principles from modern Romance languages. Above all it will be remembered that Latin was a flexional language, in which the function of words within a sentence was indicated by the endings conferred upon them by conjugation or declension. This flexional system was highly developed. Nouns, for example, had six cases in the singular and six in the plural. Since there were five declensions and four conjugations (to say nothing of irregular nouns and verbs), learning the grammar is a laborious business. But at least this wealth of flexion renders unnecessary the use of 'empty' words, as the grammarians call the ones whose chief purpose is to define the functions of nouns and verbs—such as articles, personal pronouns used as subjects, and often (but not always) prepositions. Where a modern Frenchman would say 'Je vais à la campagne', or a modern Englishman 'I'm going to the country', the Latin speaker merely said 'Eo rus'. His language was thus more concise and more elegant. It was also possible for him to vary the order of words within a sentence with greater

freedom, and without fear of misunderstanding. Between the two systems—the flexional or synthetic and the analytical—there is, in spite of the flexional vestiges which still remain in some modern languages, an enormous difference, and one might well wonder how the transition took place.

Colloquial Latin. In fact, however, the Romance languages were not derived from classical, literary Latin, but from vulgar Latin, which it would be better to call spoken Latin, since it was not confined to the mouths of the inferior or uneducated elements of the population. We can gain some idea of this colloquial Latin by reading popular authors such as Plautus or through the notes of Latin grammarians, and above all from the plentiful collection of graffiti discovered on the ruined walls of Pompeii, which are accurately dated by the destruction of the city—79, right in the middle of the ‘classical’ period. This colloquial Latin is of much more direct interest for the present purpose than is classical Latin. The former reveals major phonetical deviations from the latter, which called into question the entire flexional system. Furthermore, Plautus, and even Cicero, had recourse to a preposition where declension would have sufficed. Instead of saying of someone that he was ‘aptus alicui rei’ (dative), the latter used the phrase ‘aptus ad aliquam rem’, which pre-shadows the modern English ‘apt at something’.

Regional variations. We should also consider the extraordinary destiny of Latin, which began as the dialect of Latium—a minor region of Italy—and was spread by conquest as far as the frontiers of the vast Roman Empire. It was inevitable that it should not be spoken exactly the same everywhere. Some of the variations may be explained by the action of what the philologists call *substrata*; conquered peoples, when they adopted Latin, incorporated into it, not only certain lexical items, but their own pronunciation. Thus, it has been held that the development of the *u* (French *ou*) into the modern French *y* (*ü*) was due to a Gallic propensity and that the *f* > *h* mutation which is characteristic of Castilian (*ferrum* > *hierro*) should be attributed to a native tongue in which the *f* was unknown. It should, however, be noted that these explanations are open to question.

Moreover, Romanization occurred at different dates and was carried out by widely differing social elements. Thus, in Rumania, which was colonized by Italian peasants, the population dropped the final *s*, as in Italy itself (Rum. *dei*, Ital. *due*), whereas cultured people made an effort to keep it, as was the case with those who conducted the Romanization of Gaul and Spain (Fr. *deux*, Sp. *dos*).

Final decline. With the crisis of the third century, there was a speed-up in the evolution of Latin. The degeneration of colloquial Latin, which to some extent resulted in that of literary Latin, becomes more and more noticeable. There is a change in the nature of vowel sounds, consonants are dropped, and declensions and conjugations are simplified. The system of accentuation changes. Not all philologists agree that Latin only had a melodic accent, with the

rhythm of the sentence determined by a combination of long and short syllables. The greater likelihood is that, in classical Latin, an element of pitch combined with an element of stress to form the accent. In any case, by the fourth century, there remained only the stress accent which, by lengthening the syllables on which it fell, paved the way for the disappearance of others and destroyed the flexional system.

Moreover, as from the third century, Rome had lost her leading position at the centre of the Roman world; she could no longer prevent the various provinces from taking the initiative in thus transforming the language. Walter von Wartburg has drawn attention to the importance of the La Spezia-Rimini dividing line which was becoming more marked at that time and which, in his view, represents the real frontier between eastern and western Romania. Within the latter, a further division became apparent between northern and southern Gaul, whereas Spain was conspicuous for its conservatism.

The influence of Christianity. At this point, we should ask ourselves one last question: What influence did Christianity have on this evolution? The Christians not only introduced a number of Greek words into the Latin vocabulary and imparted a new sense to existing words. In both sermons and writings directed at simple people, they systematically sought simplicity. An attitude which is expressed in St Augustine's aphorism: 'Melius est reprehendant nos grammatici quam non intelligant populi'—it is better to be reproved by the grammarians than not understood by the masses. At the beginning of the fifth century, before the influence of the invasions could have been exerted, a young Spanish nun described her pilgrimage to the Holy Land in a vivid style, abounding with prepositions and little detached phrases—as charming as a conversation. This *Actheriae perigrinatio ad loca sancta*—a literary monument of colloquial Latin, crowning this specifically Christian evolution—proclaims the future even before the arrival of the barbarians.

Germanic Languages

How can we discover the ancient Germanic tongues? We are far from being able to give an equally clear picture of the Germanic tongues on the eve of the invasions. Apart from Ulfilas' fourth-century translation of the Bible into Gothic, we have no knowledge of them from literary texts. We have to be content with a few inscriptions engraved in the sacred Runic alphabet and with Germanic names and words reproduced by Latin writers, though not without deformations. The comparative grammar of Germanic languages as they developed later enables us to trace them back, with some degree of verisimilitude, to a common primitive language (Urgermanisch), which, like Latin, was derived from Indo-European, and was probably spoken during the first century B.C., or even before, in the Scandinavian countries and the plains of northern Germany. And in order to follow the dispersion of populations which resulted in the break-up of this common language, we can only trust to the not

very well informed accounts of Latin writers and the dubious evidence provided by toponymy and archaeology.

Classifications of Germanic tongues. Traditionally, philologists make a distinction between three branches coming from this stock—an eastern branch, which includes Gothic, and probably Vandal and Burgundian; a northern branch from which the Scandinavian languages came; and a western branch comprising High and Low German, Frisian and English. The primitive word *ǵala-z* (valley) would thus have given: *dals* in the first case, *dalr* in the second, and *dal* (and *tal*, *del* and *dael*) in the third.

More recently, Ernst Schwarz suggested a somewhat different classification; as from the time when the Germans came from the Scandinavian countries and established themselves on the Continent (i.e. as from the first century A.D.), a distinction arose between a southern Germanic, which was susceptible to contacts with other peoples, and a northern Germanic, which was conservative and conserved the primitive stock. Subsequently, a North Sea Germanic came into being between the two groups; within this, the fifth-century migration separated Anglo-Saxon from Frisian.

Common features of Germanic tongues. Whatever the correct classification may be, these tongues inherited common characteristics from their common origin. We shall confine ourselves here to giving a few examples. Phonetically, the essential features are: the progressive debasement of non-accented syllables under the effect of a vigorous stress accent on the nuclear syllable, and the first, or Germanic, consonantal sound-shift, affecting the plosives, such as $p > f$ (cf. *pecu*, and *fee*, *Vich*) $t > th$ (*tres*, *three*), and $k > h$ (*cornu*, *Horn*). Morphologically, there is the maintenance of vowel gradation (ablaut), particularly with verbs (cf. *gebären*, *gebar*, *geboren*, and *to bear*, *bore*, *born*), and the existence of special inflexions.

Well before 400, incidentally, reciprocal influences were at work between Latin and the Germanic tongues, but these consisted chiefly of the borrowing of words, which is a somewhat superficial phenomenon.

B. The Invasions and the Formative Period (Fifth to Eighth Centuries)

Influences of the Invasions

On the other hand, the movement of the great invasions which occurred as from 400 had far more profound and intense repercussions. Except in a few frontier regions to the west of the Rhine and south of the Danube, where the Germanic languages carried the day, the invaders adopted the Latin language throughout Romania, although they modified it in accordance with their habits of pronunciation, syntax and, above all, vocabulary. This influence, which the philologists call *superstratal*, made itself felt owing to the dominant position of the invaders in the new states, although their numbers were usually fairly small. It did not, however, make itself felt everywhere to the same extent,

nor in the same way, and this diversity contributed to the progressive differentiation of the Romance languages.

But this direct influence was not the only one at work. The invasions, which led to the extinction of Roman administration, the destruction of towns and the decline of education, also precipitated the evolution which took place within the Roman world as from before 400. In the general breakdown of institutions, the Church was almost the only one which was spared. In any case, those of the barbarians who were not already Christians were converted to Christianity. The social influence of the Church increased to a remarkable extent, and the linguistic influence of Christianity with it.

Under the effect of all the causes which have been briefly described above, a very profound linguistic mutation took place. For its beginnings we must go back further than 400, to the second and third centuries, for it was during the period from then until the ninth century that our modern languages were really born. If only one could study this supremely important phenomenon under favourable conditions! Unfortunately, this is not possible.

Poverty of sources. For in order to follow this evolution, we have only contemporary Latin texts—legal texts, from which many subsequent forgeries have to be eliminated, while corruptions due to re-copying must also be taken into account, and above all literary texts. We have to face the question: To what extent does this literary Latin, although quite different from the languages which were actually spoken, nevertheless mirror their evolution? The reply can only be a somewhat disappointing one. Undoubtedly, religious literature—sermons and the lives of the saints—made every attempt to keep level with the people. Nevertheless, it recorded at best only some of the changes which occurred, and did so tardily.

The result is that problems of accurate dating remain in suspense, and for their solution neither toponymy nor the comparative study of subsequent Romance languages—no matter how useful these disciplines may be in other connections—give us very much headway.

However, the method of relative chronology advanced by G. Straka is of interest. This is based on the idea that changes, and particularly phonetic changes, could not have occurred arbitrarily, and that it is possible to re-constitute series of changes, which, incidentally, differ according to the language under consideration; moreover, if one succeeds in applying a historical date to one of these changes, an entire relative chronology can be put forward in respect of the others. This is the method which has made it possible to trace back the differentiation between regional forms of speech to the second century. The assumption is that the invasions precipitated the evolution which had begun.

Towards a new Latin. This leads us to note first of all the development of trends already apparent in the evolution of spoken Latin prior to 400—confusions, simplifications and neglect of grammatical rules. The flexional system and the complicated syntax of classical Latin were to a large extent destroyed.

What is more interesting is the appearance of a new system of relations characterized by the use of the article (based on the pronoun *ille, illa*); the consecutive modification of the system of demonstrative pronouns; and the more or less regular use of the personal pronoun as subject. Is it sufficient to say that this gradual formation of an analytical system, which is typical of our modern languages, was the inevitable consequence of the destruction of the inflexional system? Probably not, and Henry Muller's theory, according to triumph to Christianity, may contain an element of truth.

Regional Developments

We can now study, country by country, the contribution made by the invaders.

Italy: Goths and Lombards. In Italy, the Lombard invasion, and then the Frankish conquest, followed on the original investment by the Ostrogoths. But it is above all the Lombard influence which is noticeable. Against 70 words of Ostrogoth origin, Italian has about 280 taken from Lombard, chiefly in the vocabulary of the sentiments and daily life. Without doubt, there is also a Lombard influence on phonetics, above all on the plosive intervocalics (*sapere* > Piedm. *saveye*) and on the free tonic vowels (*pedem* > Flor. *piede*). Many of these contributions took place mainly in the north of Italy, since the Lombards were unable to achieve Italian unity. But fortunately for the future of Italian and thanks to the Lombard duchies of Spoleto and Benevento, they spread to the south well beyond the old linguistic frontier of Celtic influences—the Spezia-Rimini line. The political setback to the Lombards was accompanied by stronger dialectical divergencies than anywhere else in Latin countries, but at least the establishment of a linguistic frontier mid-way in the country, such as occurred in Gaul, was avoided.

Gaul: north and south. For in Gaul, the essential fact was that the country was divided into two very distinct parts. In the southern areas, where the Visigoth and Burgundian establishments were very thin on the ground, the semantic contribution by these peoples was very slight. The natural evolution of Latin into a new language, which was to be known as the *langue d'oc*, proceeded naturally and unnoticeably.

To the north of the Loire, on the other hand, the close merging of the Gallo-Romans with the Franks, who had settled in large numbers, gave birth to French, the Romance language furthest removed from Latin. Under the effect of Frankish pronunciation, many syllables fell out of use, the system of vowels and diphthongs was enriched, and the aspirated phone *h*, which had disappeared in Latin, was reintroduced, while at the same time the bilabial *w* appeared. Morphology was revolutionized, declension reduced to two cases and flexions largely replaced by prepositions. As compared with this decisive evolution, the adoption of some 520 Frankish words—military and administrative terms precociously latinized (*sénéchal*, *épieu*, etc.) or more intimate words

retained by the Franks until they were included in the new language (*orgueil, honte*, etc.)—appears to be of almost secondary importance.

Iberian Peninsula: Goths and Arabs. In Spain, Germanic influences were slight. The least negligible was that of the Visigoths, who gave about ninety words to the language of the Peninsula. On the other hand, the Arab conquest played a part which it would be difficult to exaggerate. First, it may be assessed on the basis of its semantic contribution, which was at least as considerable as that of the Franks in Gaul. In this connection, we must leave aside scientific terms borrowed from Arabic. As a result of translations, such terms were, in any case, very soon adopted by other European languages. Of greater interest are the hundreds of terms connected with war (Sp. Port. *algara*), administration (Sp. Port. *almirante*), agriculture (Sp. *alcachofa, algodón*) and the entire vocabulary of irrigation, crafts and trade. The variety of these fields of activity bears witness to the part played by the Moslem conquerors in the life of the Peninsula.

To be sure, Arabic does not appear to have exerted any influence on the phonetics or grammar of the Iberian languages. However, the Mozarabs evidenced a great aptitude for assimilating Arabic words with their original rhythm. Thus it was that the rules of accentuation proper to Arabic were combined with those originating from Latin. This explains the extreme variety of accentuation in modern Spanish, which includes oxytons (*algodón, albalá*), paroxytons terminating in a vowel (*bueno*) or a consonant (*azúcar*) and even proparoxytons (*alcándara*). Only modern Italian and English have an equal flexibility of accentuation.

High German mutation. And so old Romania took on a new, and more varied look. But in the Germanic world itself, important changes were also taking place. All Germania south of the line Limburg-Benrath-Magdeburg (known as the Benrath Line) was affected by what has been called the second, or High German, consonantal sound-shift. This was chiefly marked by the transformation of plosives into spirants—change which did not occur to the north of this line. Thus we have OHG *opan* > NHG *offen* (cf. Engl. *open*), *etan* > *essen* (Engl. *eat*) *brekan* > *brechen* (Engl. *break*). The deep-lying cause of this evolution, which took place from the middle of the sixth to the beginning of the eighth century, is not clear. Should it be related to the conquest of southern and central Germany by the Franks, and therefore to Frankish influence? Or to substratal activity on the part of the conquered Celtic and Rhaetian populations? Whatever the answer, a linguistic division comparable to that in Gaul was taking place in Germany between the High German and Low German dialects.

England: Old English. In England, the invading Angles, Saxons and Jutes introduced dialects closely related to the Low German tongues: Kentish, Anglian (to the north of the Thames), and west Saxon (in Wessex). It is the

latter which is known to us through the greatest number of texts and which, thanks to Alfred the Great, raised itself to the dignity of a literary language by the end of the ninth century. It is therefore the one which is usually referred to by the term Old English, although the true ancestor of Modern English is the Anglian speech of London.

Latin influence is not entirely absent from these dialects. To the few Latin terms which had been adopted by the invaders while they were still on the continent were added certain religious terms after they had been converted to Christianity. But by a very full use of derivation and composition, Old English was capable of drawing on its own resources for the majority of words which the evolution of civilization led it to create.

Lastly, as from the ninth century, the influence of the Viking invaders made itself felt, particularly in the Danelaw, east of the line Chester-London. It manifested itself not only in the introduction of numerous words into the language of the people (such as *law*, to *call* and the pronouns *same* and *both*) but also by changes in the original form or meaning of Anglo-Saxon words (e.g. *bird* > *birth*). The far-reaching effects of this are explained by the close relationship between the Scandinavian and English tongues.

Scandinavian conservatism. Lastly, the Scandinavian languages remained most free from any external influence. This example demonstrates how slowly a language evolves when the country in which it takes shape is sheltered from invasions. It was only about the eighth century that the division between Danish, Norwegian and Swedish occurred. Of the three languages, it was undoubtedly Swedish which remained the most conservative, with only its pronunciation changing slightly once its spelling had been fixed. Owing to the union of Norway with Denmark, the Norwegian language had a more troubled history, with the result that it was not until the nineteenth century that a uniform Norwegian language came into being.

C. The Carolingian Epoch: Establishment of Bilingualism

Carolingian Renaissance and language. Thus, a whole range of interacting influences appeared on the morrow of the Great Invasions. And yet Latin was spoken everywhere—and written even more, for it was the language of the Church, in England and Germania just as much as in Gaul and Spain. It also was almost everywhere the language of administration, law, and formal education (though Old English dialects were used in these fields at an early date). It was even easier to maintain its purity in Germanic than in Latin countries, where it was subject to contamination from the spoken language. Thus, England in the eighth century, with Bede and the school of York, became the refuge of correctly written and used Latin. At that time nobody in Gaul, even among the clergy, was any longer capable of writing good classical Latin, and the divergencies were increasing unceasingly.

It was then that occurred what has been called the Carolingian Renaissance.

Charlemagne was essentially prompted by religious motives. As he considered himself responsible for the salvation of his subjects, he tried to improve the education of the clergy, so as to enable them to interpret the Scriptures correctly (Alcuin, incidentally, was preparing a corrected and uniform text of them) and teach the True Faith. Such a reform implied the restoration of correctly written Latin—not classical Latin relying exclusively on flexions and with its complicated syntax, but a language in which at least the essential rules of Latin grammar were respected. This was enough to create a veritable gulf between written Latin and the languages of the people in all Romance countries where the reform was applied. How was it possible to maintain contact with the masses to whom this Latin of the clergy was inaccessible? The problem was put in 813 to the Council of Tours, which enjoined priests to explain the word of God in the vernacular, Romance or Germanic (*in rusticam romanam linguam, aut in theotiscam*).

Bilingualism: Latin. Philologists have frequently insisted on the historic effect of these decisions. Walter von Wartburg saw in them 'the birth certificate of national languages'. In fact, these languages had already been born, progressively over a period of centuries and had clearly separated from their primitive Latin and Germanic stocks. But it was the Carolingian epoch which, in a sense, consecrated this birth and this consecration founded the bilingualism which was to remain more or less the rule for all states of Latin Christendom.

On one side therefore, we have Latin, the language of religion, learning and literature—and also of administration, since the latter was in the hands of the clergy. This Latin, incidentally, was to be restored by subsequent renaissances, particularly that of the twelfth century, to an ever-increasing purity and sometimes to the very spirit of the classical language. In the twelfth century, the language of Cicero and Vergil themselves was once again being written with ease and elegance.

First specimens of the vernacular. On the other hand, the vernacular—the languages of the people—were reduced to a subordinate position. To be sure, Charlemagne took an interest in his Germanic mother tongue and we learn from his biography that he had epic poems, singing the prowess of the Germanic gods and kings, recorded in writing. Unfortunately, these records have been lost. However, during the ninth and tenth centuries there appeared the first texts in the vernacular, at the same time as the glossaries which bear witness to the effort made to pass from one language to the other (some of these are still extant—the glossaries of Reichenau and Kassel in the Germanic countries and the *Glosas Emilianenses et Silenses* in northern Spain).

In northern France, we have the famous 'Oaths of Strassburg' delivered in Frankish and Old French by Charles le Chauve and Louis the German (842), (Pl. 14b) so that their troops should understand it, and recorded by the historian Nithard. There are also works of religious enlightenment, the equivalent of which are also to be found in southern France. Germany possesses frag-

ments of epic poems and works of Christian teaching. But these are the results of efforts made locally by different monasteries.

The achievements of Alfred the Great. They should, however, be borne in mind for a better understanding and appreciation of the work of a man like Alfred the Great. In England, Latin studies had fallen into a deep decline by the ninth century, and many monasteries had been ruined by the raiding Vikings. This decline incited Alfred the Great, king of Wessex, to translate into Old English, with the assistance of a few clerics, the texts which were essential for the training of the clergy. The translation, which was very clumsy to start with, improved as the work proceeded. This success encouraged Alfred to have the original drafting of the *Annales* and a Code of Law done in Old English.

In spite of the restoration of Latin studies at the end of the tenth century, this effort was continued. The *Homilies* and *Lives of the Saints* written by Aelfric, and the *Sermons* written by Wulfstan (beginning of the eleventh century) complete this first crop of literature in the vernacular to emerge in medieval Europe and to emerge not merely as a result of a transient decadence of Latin but of a vigorous national individuality, precociously capable of expressing itself fully from its own resources.⁴ However, the conquest of England by William of Normandy was due to place an almost total check on this evolution.

Bilingualism, and the privileged position accorded to Latin, were to help maintain the universality of medieval European culture—the heritage of the old Roman unity reinforced by Christian universality. But it reduced the languages of the people to an inferior situation, from which they emerged only at the price of a hard struggle, carried on against both Latin and the dialectical forms.



D. Emancipation of the Romance and Germanic Languages

The Problem

The crystallization and emancipation of the vernacular tongues constitute the linguistic aspect of that demographic, economic, social and political evolution of western and central Europe, which was described in the first part of this work. Obviously, the social and political factors in linguistic development varied from one country to another. The minor nobility and bourgeoisie, which was increasing in number, could not provide themselves with an education including a full mastery of Latin. Meanwhile, their day-to-day administrative and business duties, and their desire for distraction and self-expression, made it necessary to resort to their own language in the written form. This social evolution did not occur to the same extent everywhere. Moreover, its influence could be mitigated by political conditions or even by the inadequate development of the language itself. Consequently, there was divergency in the destinies of languages.

France

The langue d'oc. The linguistic break became increasingly characteristic of France, and persisted in recognizable form right into the twentieth century. Today, the limit between *oc* and *oil* speakers runs from the junction of the Garonne and the Dordogne to Vichy and then down to the south of Grenoble. Formerly, it was certainly much further north.

To the south of this line, a whole number of factors resulted in the formation of a language comparatively close to Latin, which is sometimes known as Provençal but which it is preferable (since Provence is only one of its districts) to call *langue d'oc* (after the word *oc* used for *yes*). These factors also caused its precocious accession to the rank of a literary and administrative language. It was little affected by the invasions, and evolved simply and regularly. Latin, which had been scarcely affected by the Carolingian Renaissance, rapidly declined. A strong feeling of individuality developed in the districts of Toulouse, Albi, Carcassonne and their surroundings. This was directed against Latin as well as against the Roman religion. But to all this was added, in the twelfth century, a social factor—the emergence of the minor aristocracies and of a bourgeoisie which was in contact with the urban nobility.

Thus there appeared, as from the end of the eleventh century, a lyrical poetry in *langue d'oc* while the number of legal documents drawn up in the same language increased. The Albigensian Crusade dealt a serious blow to this development. Not that the physical destruction was as great as has been sometimes thought or that the French monarchy attempted to impose the language of the north, but the aristocratic courts were dispersed, and the spirit of individuality broken. The *oc* vernacular continued to be used for administration and business, and for a literary production of secondary quality. Their decline, which was spread over a number of centuries, was manifested by increasing dialectalization, while French gradually supplanted it for written purposes.

Langue d'oil and French. The French of the north (with *oil* for *yes*) is the most extreme example of evolution from Latin. It is also the most simple and regular example, with linguistic, political and geographical factors all acting in the same direction. Among all the dialects of this northern France, that spoken in Paris emerged as an average standard. And it is in Paris that, in the twelfth century, the Capetian monarchy, destined to spread its control throughout the kingdom, established itself. As from the twelfth century, the prestige of the monarchy and its court acted in favour of the Francien. Chrétien de Troyes, a native of Champagne, wrote his works in a Francien form from which he gradually eliminated the dialectical impurities of Champagne. In the thirteenth century, the poet Conon de Béthune complained of having been reprimanded by the court for his Nordic speech, and Francien was sufficiently dynamic to eliminate the influence of the works written in the prosperous urban centres of Flanders and Artois.

Owing to the precociousness of this development and to the vigorous expansion of the French-speaking peoples (including the Normans, who rapidly became Gallicized), French played the part of an international language, to a lesser extent and in other fields than Latin, during the thirteenth century. Its praises were sung in every country and it was an English writer who recognized the result of divine pleasure in its sweetness and charm.

England, a Trilingual Country

England provides a curious, exceptional example of linguistic history. There, the Norman Conquest interrupted normal evolution, which had been characterized by the extensive use of written Old English at an early date. A sort of trilingual system was instituted. Latin replaced Old English as the official and legal language; French (the Anglo-Norman dialect) was the everyday language of the élite—the feudal aristocracy and the higher clergy—who also used it informally in administrative and legal practice but English remained the spoken language of the lower orders. And yet, intercommunication between these three linguistic layers was not lacking. As a result of marriage and social relations, an increasing number of the population was speaking two, or even three, of these languages. Moreover, during the thirteenth century, the English kings lost the majority of their continental fiefs and the transplanted nobility cut itself off from its French connections. Thus a new national community was formed.

But Middle English took a long time to emerge. Although there was a literary English from the eleventh to the thirteenth century, it was of purely popular appeal. There was no central power to organize the map of highly variegated dialects. It was only the establishment of the capital in London and the foundation of the universities of Oxford and Cambridge which paved the way for the victory of the south-east Midlands dialects, upon which Chaucer and Wyclif set their seal at the end of the fourteenth century.

This explains why French influence on English was unequal. So far as vocabulary was concerned, the influence was enormous. A flood of words, particularly those related to intellectual and moral concepts, penetrated the language during the thirteenth and fourteenth centuries, and English began to assume its odd aspect of a 'language with a mixed vocabulary'. (F. Mossé.) The influence was also strong on prosody, which adopted the system of rhyming. It was not negligible where syntax was concerned, and a number of constructions enriched the means of expression. But the basic structure of the language remained unaltered.

Germany

German and Latin. In Germany fragments of epics in Old High German (dating from as early as the ninth century), such as the *Hildebrandslied*, might have been the precursors of a rapidly developing literature in the 'language of

the people' (as the word *deutsch* literally means). But in the tenth century, the prestige of the imperial idea, which the Ottonians dedicated themselves to serve, thrust the German dialects back to an existence on an oral, inferior level only. With the exception of a few works of religious popularization, all literature was now in Latin. The stimulus to emancipation, when it came, was the example of France; the twelfth century penetration into Germany of epic poems in French, and lyrics in the *langue d'oc*, called forth more or less free imitations and to some extent awakened the German language to an awareness of itself.

In administrative and legal usage, German did not supplant Latin until a later date; the first steps in its introduction were taken by the minor nobility, who in the thirteenth century were beginning to be of increasing importance politically, and, lacking the services of clerks of chancellery, had perforce to draw up legal documents in German. Between 1215 and 1235, the knight, Eike von Repgau, elected to compose his *Sachsenspiegel* (Mirror of the Saxons), a judicial treatise of no little importance, in Low Saxon, going to considerable pains to eliminate too markedly dialectical peculiarities. The bourgeoisie clung more tenaciously to the Latin culture which was still being imparted in the urban schools. Right up to 1400 the private 'merchant-books' were kept in Latin. The emancipation of German began in the Rhineland, more particularly towards the south: of the 2,500 surviving German documents earlier than 1300 (compared with some 500,000 Latin ones), 2,200 originated in the High German countries, principally in Alemannic Switzerland, Alsace and their surroundings. Some time about 1200, German became the accepted idiom in correspondence between the towns of Alemannic Switzerland.

German, a colonial language. But what form of German? There a common language was not arrived at easily as in France. The twelfth and thirteenth centuries saw the foundation of a common literary language (though its outlines were still not absolutely clear), the better authors being at one in their efforts to rid their work of dialectal peculiarities so that it might win a wider audience. But it did not long survive the decline, in the fourteenth century, of the courtly, chivalrous background that had supported it. Moreover, the vicissitudes of the imperial power were such as to prevent the influence of court and chancellery being in any way stable or lasting. The Hohenstaufen, especially Henry VI (1190-7), made their contribution to the achievement of courtly poetry in German but their power crumbled. Rudolf of Habsburg (1273-91) introduced the extensive use of German in his chancellery, but his successors reverted to Latin.

It was nevertheless from a situation created in the thirteenth century that a common German language did eventually emerge. Common colonization of the regions to the east of the Elbe and Saale brought together elements from all over Germany and from the Netherlands; and by force of circumstance there developed an intermediate colonial language. As an intermediary, it was

nowhere better of its kind than in that extension eastwards of central Germany, the Marches of Meissen. Frankish was still the dominant strand, but not to the exclusion of others, making this language acceptable in south as in north Germany. It was, in fact, Luther who, at a much later date, confirmed its supremacy.

The Netherlands. The twelfth and thirteenth centuries, however, also saw the growth within the Empire of a Germanic grouping that was to have its own linguistic history—ultimately leading to the formation of a new language, which is now called Dutch in modern Holland and Flemish in modern Belgium. The territories surrounding the estuaries of the Rhine and the Meuse, linguistically speaking, comprised several areas, with a good deal of interpenetration: Frisian, Saxon, Low Frankish and Walloon (a French dialect). Politically, the confusion was no less. The greater part of the Low Countries owed allegiance to the Empire, the authority of which had since the eleventh century ceased to be anything but theoretical. On the other hand, the county of Flanders was part of the kingdom of France and, after a period in which it enjoyed virtual autonomy, it found itself in the thirteenth century under the sway of a more effective monarchy, exercised through a local dynasty and an upper bourgeoisie, which were both francophile and French-speaking. Nevertheless, the vigour of its urban life, founded on the prosperity of the textile trade, found expression from the thirteenth century onwards in the use of Flemish in legal documents (the oldest dates from 1249) and in popular literature. The Flemish prose of this period was capable of conveying the mystic fervour of the Brussels nun, Hadewijch. But the spread of written Flemish was due principally to the prolific popularizer, Jacob van Maerlant (c. 1230–1300). Around 1300, the rise of the Flemish populace against the French monarchy gave the language the added force of a symbol of independence. But it was still a long way from the period of Flemish decadence in the fifteenth century to the union of the United Provinces in face of foreign attack, and to the final evolution of a common language for the Netherlands.

Late Crystallization of Italian

Both French and the *langue d'oc* indirectly stimulated the emancipation of the Italian language from Latin. That country was the last to turn to her own popular language. Dialects differed more widely here than in any other Romance country. There had been no awakening of any real linguistic self-awareness to set against Latin. The literary languages were the *langue d'oc*, which was closer to the northern dialects like Piedmontese than was Tuscan, and a French sprinkled with Italianisms. It was in French, the language he declared to be 'the most pleasurable and known to the greatest number', that Brunetto Latini wrote his *Livre du Trésor*; it was in French, too, that Marco Polo dictated the account of his travels.

Some efforts were nevertheless made to confer a new dignity on the Italian

dialects. Lombardic verses composed in the north, the first account book kept by a banker in Tuscan, and St Francis of Assisi's *Canticles* in Umbrian, are signs of a language in search of itself. At the court of Frederick II, the lyrics of the *langue d'oc* were imitated in courtly Italian with results which were read with admiration as far away as Tuscany. After Frederick's death, the centre of Italian poetry moved to Florence. Indeed it was the fortunate coming together of this Tuscan dialect and the genius of Dante that assured the Italian language its future. Of all the dialects of the peninsula, Tuscan had stayed closest to its Latin origins. Everywhere else, sub-strata had made their influence felt: Gallic in the plain of the Po, Oscan in the south, and even in Rome. The word *tingere*, for example, which Tuscan retained as such, was in other dialects distorted to *tegnere*.

It was Italy's good fortune that Dante should have been born into this predestined dialect. He was, certainly, not the first to put it to literary use; and he had himself produced dogmatic works in Latin. But he reproached those bad Italians, who sing the praises of another's vernacular and derogate their own. And in one stride he carried this Tuscan tongue, enriched with a few appropriations from other Italian dialects, to the harmony and formal richness which still characterize Italian today, and in works of genius which commanded acceptance everywhere. During the fourteenth century, thanks to Petrarch and the other prominent writers who succeeded Dante, and to the prestige of the urban civilization of Italy, Italian gained ground so rapidly that it could soon claim to have superseded French as the medium of literary supremacy.

The Iberian Peninsula

The early dialects. Only the developments in the Iberian peninsula remain to be studied. Here several tongues developed side by side: Castilian, Portuguese and Catalan, with Basque still retaining a remarkable vigour. Thus what appears as an overall geographical unity was not reflected as a linguistic entity. It is tempting to attribute this fact to medieval Spain's political vicissitudes. What was the exact significance of the Moslem conquest in this connection and what were its consequences?

In addition to the direct influence of Arabic on the languages of the peninsula, a further result of the Moslem conquest was an acceleration of the rate of decline of Latin and of the process of disintegration into dialects. In Moslem Spain the dialects spoken by the Mozarabs existed humbly by the side of Arabic, now the cultural language. In the Christian states of the north, the popular speech dissociated itself gradually from Latin. Here, there was no Carolingian Renaissance to restore the purity of Latin and separate it sharply from the colloquial Latin then in use. Mid-way between the popular language and the relatively pure Latin written by a small number of clerks, there persisted for a long time a degenerate form of Latin, called 'latinum circa

romancium'. Moreover, although the dialect areas doubtless corresponded roughly with the distribution of the pre-Roman sub-strata, the political disunity of the peninsula fostered the interaction of dialects.

Most of these dialects stayed fairly close to the common Latin base from which they originated. For instance, they preserved before the unaccentuated *e* and *i* the palatal consonant from the Latin initial *g* or *j* (*germanum* > Aragonese *girmano*, or Catalan *germa*), and likewise the initial *f*. But the fate of the accentuated vowels *e* and *o* is illustrative of the differences that arose: while preserved in certain Mozarab dialects, in Galician (*serra*, *pobo*), and, as a rule, in Catalan (*serra*, *poble*), in others they were changed into diphthongs (*sierra*, *pueblo*).

Portuguese, Catalan. In general, the Mozarab dialects were most conservative. So was the Galician (from which Portuguese did not emerge as a separate form until the thirteenth century). In the case of Galician, the habitual disappearance of the intervocalic *l* and *n* resulted in numerous vowel clusters, to which Portuguese owes its richly undulating sonority. The particularly close relations existing between Catalonia and France, and indubitable similarities of Catalan with the *langue d'oc*, have sometimes caused the former to be considered the latter's offshoot, a hypothesis almost impossible to confirm or deny, since there is no way of knowing whether the language which was spoken before the Moslem conquest in what was later to become Catalonia did not already contain in embryo some of the characteristics of the future Catalan. Moreover, the relation of Catalan to the other idioms appears more clearly when Castilian is set aside as having evolved separately. Attempts to link up Catalan in the direction of either the *langue d'oc* or the hispanic are better abandoned in favour of a study of it in its genuine originality.

Castilian. No dialect underwent such marked evolution as the Castilian. Originating in a region which was Romanized late in time, and from which the neighbouring Basque influence was never truly absent, it constituted at first a quite remarkable island in the linguistic map of the peninsula: here the initial *f* disappeared, or became an aspirated *h* (*filium* > *hijo*), as did the initial *g* and *j* (*hermano*): *o* and *e* became diphthongs. These changes are clearly apparent in texts dating from about the middle of the eleventh century, when Castilian was beginning to feel the benefit of the vigorous expansive energy of a newly liberated Castile.

The impact of the Reconquista. So we come to the *Reconquista*. The Mozarab dialects offered scant resistance to those spoken by the Christian conquerors from the north. But, in this reconquest, by far the most important part was played by Castilian, which now impressed its linguistic mark from Biscay to Gibraltar, cutting the peninsula in two. Here lay the origin of its future predominance.

That French influence was felt, is explained by the part played by French

knights, clerics and colonists in the *Reconquista* and the resettlement of the recovered territory that followed. What passed most lastingly from it into the hispanic languages was a vocabulary of terms relating to religious and feudal life.

The literary flowering that took place in the thirteenth century finally confirmed the popular languages in their dignity. At the same time it brought into prominence the one language which was heading for the most brilliant future. Here again, Castilian enjoyed advantages. Poetry had been written in it since the previous century. But in the thirteenth century, as the area in which it was used was extended, regional peculiarities made themselves felt, and unification came about through prose, in the many works composed under the direction of Alfonso X (the Learned), who reigned from 1252 to 1284. This monarch evinced a concern, then new, for the standardization of the language. He established the supremacy, as the *castellano drecho*, i.e. the straight, right, pure Castilian, of the speech of Toledo, purified of Castilian's extremer tendencies and enriched by a whole learned vocabulary systematically reclaimed from Latin.⁵

Decline of Latin

Thus Europe, from the fifth century, had been the scene of a linguistic emancipation almost unique in history. In 1300, the process was not yet complete. Latin retained into the eighteenth century its rôle of scientific and philosophic language and in the last years of the nineteenth century, theses in several European countries were still presented in it. It is scarcely necessary to recall that until the Second Vatican Council, Latin remained the language of the Catholics. Is it not to be preferred for certain purposes by reason of its universal character?

The gradual abandonment of Latin, however, is none the less striking. To all the factors of importance in linguistic evolution already mentioned should be added the fact of the very variable resistance it opposed to them. The mistrust felt by some of the clergy towards classical Latin, written as it had been by secular authors, meant that the same importance was not attached to its preservation in an unaltered state as was the case with Greek in Byzantium. And although now and again an isolated writer (such as Philippe de Harvenge writing in the twelfth century to the count of Champagne) would, with an amazing display of ignorance, declare that Latin was the language bestowed by God on His Church and the language of God Himself, such a sacred value was never set on Latin as on Arabic.

The ninth century, then, saw the establishment of a bilingualism, and thenceforth the balance of this situation steadily shifted, to the detriment of Latin. In each region, Latin and the indigenous dialects divided between them what we today regard as the functions of a national language. The continual switching which educated people were obliged to make from one language to another produced numerous inaccuracies and approximations, the more so

since Latin proved not always capable of expressing the realities of a developing world. The confinement of each of the linguistic elements to a limited realm of application resulted in disadvantages for all concerned.

Medieval Latin has frequently been characterized as a living language, in which any possibility of uniformity was ruled out by the developments within it and their variation with country and period. The statement is not strictly accurate. It did continue to be spoken, but only in what were in fact somewhat restricted circles, and, even there, not in connection with every side of life. It retained few of those tendrils reaching down into the popular usage from which a cultural language normally draws sustenance. Its basis was much more a scholarly one. Medieval Latin was not a dead language, but it had nevertheless outlived its own true life-span. Its development was in part degeneration, halted at intervals by brilliant returns to the fountain-head, none of which ever succeeded in making up the ground lost since its predecessor.

Freedom and Flexibility of the New Languages

This Latin, at all events, was taught, its grammar studied and commentaries made on its best authors. The young vernacular tongues had none of this scholastic character. They were without either grammar or orthography. They enjoyed in consequence a greater freedom and flexibility which they doubtless needed at this formative stage. Some, as, for instance, the hispanic languages, already by the thirteenth century presented a recognizable character of their own. But they evidenced still too great a lack of stability, coexistence of forms at different stages of evolution, a following of spontaneous tendencies in phonetic development and analogical formations, insufficiently controlled by the written usage. Syntactically, the clumsy juxtaposition of principal sentences gave way only slowly to any controlled or sensitive use of relative clauses and affective factors still prevailed over the logical, and sudden impulses were liable to shatter the normal word order, frequently resulting in confusion.

French had as yet not even established its essential character. A great variety of vowel sounds, extreme richness of vocabulary (save in the field of abstraction which was still occupied by Latin), flexibility of the morphological machinery, a wide range of syntactical possibilities, enjoyed at the price of some sacrifice of clarity—such were the characteristics of the medium that numerous fourteenth- and fifteenth-century translations of philosophical and learned works and, to an even greater extent, the rigorous standardization of seventeenth-century classicism, were so profoundly to modify. In the thirteenth century, French was often praised for its sweetness, never for its precision or lucidity.

Growth of a 'Language Consciousness'

'A language consciousness' had none the less already come into existence,

which had, at any rate, some measure of value and significant effect. (Map XXI.) Etymological curiosity was never long dormant in minds which were often inclined to attribute to words a quasi-magical value and progress had been made in this direction since the truly fanciful etymologies produced by Isidore of Seville. Authors like Giraldus Cambrensis, about 1200, and Jimenez de Rada, archbishop of Toledo, a little later, or Dante (who conceived a large work *On the Vernacular*, but left it unfinished) give accounts of linguistic Europe which are often rather well informed and reveal a sound instinct for linguistic genealogy. When two of the vulgar languages had quickly to be made comprehensible to each other, a need was felt for tools; thus England, rather earlier than the continental countries, evolved a sort of grammatical literature, of which precursors, in the shape of a few systematic glossaries, were already appearing in the thirteenth century. Finally, the use of Castilian as a scientific instrument gave Alfonso X the seminal idea of standardizing the language.

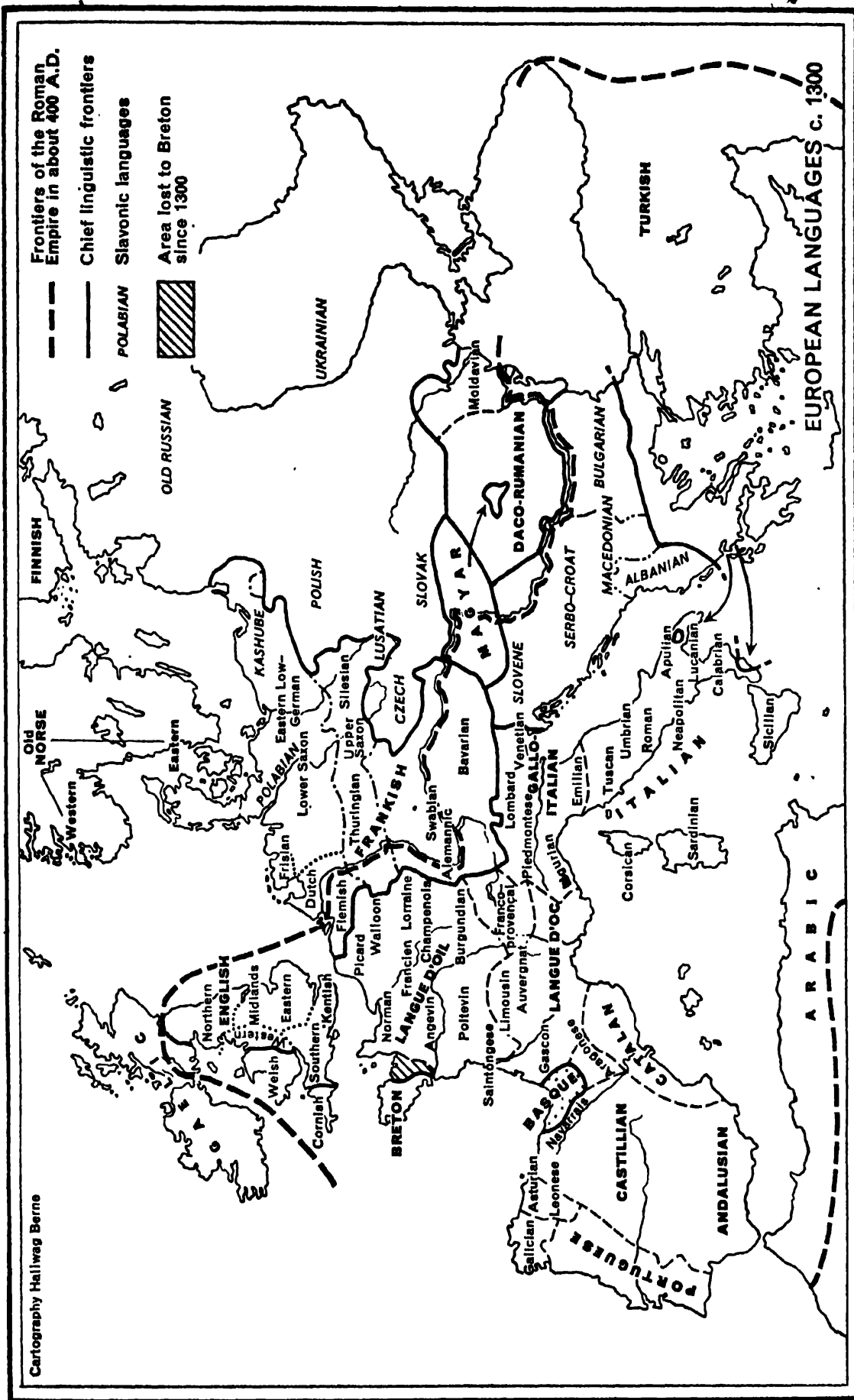
These are but indications which closer co-operation of philologists, historians and psychologists must be left to develop. What calls for elucidation is the primary attitude of man towards words and the linguistic fact.

E. The Slavonic World and the Byzantine Empire

The linguistic evolution of the Slavonic world was less remarkable and probably of less import, for in 1300 the Slavonic idioms were at only a very early stage of their development and emancipation. On the other hand, Greek, unlike Latin, gave rise to no new languages—except modern Greek which can be considered as a new language.

Slavonic Languages

The common Slavonic. The Slavonic languages are the most easterly off-shoot in Europe of the Indo-European tree. They are also the ones that have continued in the most direct line from it. Remaining somewhat apart from the other great human groupings, the Slavs were able, in the words of A. Meillet, 'to live on the means afforded by their old Indo-European base, using and adapting the same, without any sudden upheaval'. For the same reason the Slav linguistic unity was not broken up until later than the Roman or Germanic, and then less definitely. Slavs of the eighth century from the Dnieper to the Elbe, and from the Baltic to the Balkans, could still, despite slight difference of dialect, understand each other. Linguists have endeavoured to reconstitute this 'common Slavonic' and to define its essential features, such as the tendency to the shortening of the vowels and the strict division of them into pre- and post-palatal series. A whole vocabulary held in common by the modern Slavonic languages reflects the Slavonic civilization of the early Christian centuries; such words were connected with dwelling, rural life and certain craft techniques such as weaving.



MAP XXI

Cyril and Methodius. But as early as the sixth century the historical factors that were to lead to a differentiation within the Slavonic grouping were already at work. In the Balkan peninsula, the Slavs came into contact with the Hellenic world and most of them were to take from it their religion and their alphabet. The alphabet was the work of the missionaries Cyril and Methodius, who were sent to Moravia in 862, and, working from the Greek minuscule, produced the Glagolitic script, used thenceforth in liturgical books (Pl. 15); it was completed by their successors, the true creators of the alphabet known as 'Cyrillic', which was born of the Greek capitals and was the basis of the Russian and Bulgarian scripts. Faithful to the linguistic liberalism of Byzantium, Cyril and Methodius had translated gospels, psalms, homilies and prayers into Slavonic. They were natives from Thessalonica and used a Macedonian dialect—very close to the ideal common Slavonic, which some linguists have designated Old Slavonic. This liturgical language was subsequently stabilized and the Orthodox Church imposed this somewhat artificial Slavonian in all the Slav countries.

Differentiation of the Slav languages. With Slovenes and Croats, on the other hand, it was the Roman influence that predominated; from Rome also, later, came the Christianity that converted the western Slavs, who were gradually pressed back beyond the Elbe. Meanwhile, the Hungarian invasion in the tenth century had separated these western and southern groups. Moreover, among the southern Slavs a previous invasion by the Bulgars had already introduced a certain differentiating factor. The Bulgars have merged with the Slav population and adopted their language, but the Tatar sub-stratum meant that the Bulgar language was much further removed from the common Slavonic than, say, Serbian.

Thus, from the ninth century, differences begin to appear both between the Slav groups and within them. The silencing of semi-vowels had different consequences in west and east. The disappearance of nasal vowels that took place at the latest in the ninth century in Russian and Czech, and between the twelfth and thirteenth in Bulgar and Slovenian, did not occur at all in Polish. Declension systems changed; in Bulgar, they disappeared altogether. Conjugation also developed along different lines, and the perfect and imperfect refinements began to take shape. On the whole, differentiation in the eastern groups was the slower; Russian, Ukrainian and White Russian did not really move towards separate existence before the twelfth century. But it was in Russia in the eleventh century that Slavonic first became a literary language. Elsewhere, although we have a Slovenian text of the tenth century, there was no Czech literature before the thirteenth century and no Polish before the fourteenth.

We know that the Byzantine Church indulged in this evolution and allowed religious service to be held in the various vernaculars of the nationalities inhabiting the Empire. Thus the *Vita* of Hilarion tells of religious service in the

Georgian language in one of the Olympic monasteries and Russian liturgical books figure in the inventory lists of the Pantelemon monastery of Mount Athos.

Greek

Literary and popular Greek. As they spread through the Empire conquered by Alexander, the collection of dialects that had hitherto constituted Greek merged in the rise of a common language, the Koiné. But on the one hand, in this vast Hellenistic world, new dialect divergencies had inevitably arisen; and on the other, the Koiné was counted impure and soon had an Atticist movement ranged against it, strong in its attachment to the pure language of the classical Athenian writers.

In the Byzantine Empire also, Greek developed along two lines: one was literary and traditional; the other, of which we cannot easily reconstruct the features, was popular. Nowhere is Byzantine conservatism more apparent than in this field of literary language. Pride in a medium made illustrious by immortal authors and venerable Church Fathers, the determination to set themselves apart from the barbarians, all played their part in this purist traditionalism. This semi-sacred language, from which all possible change was to be excluded, was the language of culture; it was also an aristocratic language, which reflected the stability that tended to prevail in the Byzantine society.

Nevertheless, it underwent periods of decline from time to time, followed by returns to classical correctitude; an eleventh-century writer may well be more classical than one of the eighth and there is little difference between the language of Procopius (sixth century) and that of Critobolos (fifteenth century).

Psellos. The purest in style of all these writers was probably Psellos. Yet this ninth-century historian has considerable difficulty in handling turns of phrase no longer current in the spoken usage. His syntax displays a number of 'Byzantianisms'. And it is precisely those forms which were least employed in his own day, that his purism leads him to seek after, such as the dual form, and the optative, already rare in the New Testament. The same purism is displayed in the twelfth century by Anna Comnena, to such a degree, in fact, that she hesitates to spoil the harmony of her style by citing the crude names of barbarians. But she is already less successful than Psellos.

Popular language and modern Greek. It is precisely to mistakes on the part of certain authors, and to the inveighings of grammarians against popular usages, no less than to works of popular writers—sermons, lives of saints, and so on—that we owe our information about the spoken language and its evolution. Such works, written for a large public, reflect the evolution towards modern Greek. Thus masculine terminations are increasingly substituted for the feminine in

the active present participle, which in modern Greek is invariable. And a whole series of transitional forms are experimented with, in the progression from the old instrumental dative to the modern use of *μετά* or *μέ* with the accusative.

This popular language, naturally, took on dialectal forms, some of which survive today. Occasionally it is possible to date their origin. As a whole, it is possible to assign to the Byzantine period the differentiation of a northern dialect group, characterized by abbreviation and a far-reaching transformation of the unaccentuated vowels, and a southern group, in which the only changes were those of detail.

The historical destiny of the Byzantine Empire was such that, within it, Greek experienced no foreign influence strong enough to affect its morphology or syntax; the Roman administrative legacy amounted to no more than a number of Hellenized Latin words (as *bullā* > *βούλλα*), and the influence of the French vocabulary which the Crusaders brought with them in the thirteenth century was to prove ephemeral. Historical circumstance explains also why Greek, unlike Latin, gave birth to no other new languages, modern Greek apart. A. Meillet has put the point clearly: 'The Eastern Empire gradually declined; but it did not crumble into separate kingdoms, or even into sharply demarcated provinces. In consequence, while Greek had its local variants, at times diverging widely, there were at no time any dialect groups of importance which might have condensed into different languages.'

NOTES

1. Professor Jussi Aro points out that subsequently this translation was often revised so that little of a 'purely Greek tradition' is left in the more recent manuscripts.
2. Professor Aro indicates that there were Syriac versions of the Bible with commentaries of an earlier date, before the division of the Syrian church into Jacobite and Nestorian groups. Jacob of Edessa also wrote grammatical studies and other scholarly literature.
3. Professor Aro feels that it should be mentioned that the Jacobites used Greek vowel-signs to express vowels while the Nestorians developed combinations of points for the same end, and these may also have been the models of the various Hebrew systems. Owing to the Jacobite-Nestorian schism, the older Syriac writing known as *Estrangelo* split into two different styles, Jacobite *sertō* and Nestorian. The pronunciation also developed differently in the two areas. The Nestorians on the whole preserved the old pronunciation better while in the Jacobite area some long vowels changed their timbre, e.g. *ā* > *ō*.
4. For Beowulf, see p. 38.
5. Although Castilian by the time of Alphonso X was firmly established as the widespread language in the Iberian peninsula, it did not overshadow the blossoming Galician-Portuguese and Catalan, on the western and eastern coasts respectively. Galician was regarded as the best vehicle for lyric poetry; Alphonso X himself wrote his *Cantigas* in Galician and the tradition was carried to greater height by his grandson, Denis, king of Portugal, and the author of more than a hundred charming poems. At the same time, the military expansion of the Catalans found its literary expression in the forceful chronicles of Muntaner and Descloz, to which a large production by other prose writers must be added. (R. Lopez; this point of view is shared by Professor Wolff.)

CHAPTER VII

LEARNING AND EDUCATION

I. THE FAR EAST

THROUGHOUT the Middle Ages, learning was dependent on the demands of the examinations which governed entrance to the administrative careers or, in a more specialized way, on the religious requirements to which the expansion of Buddhism gave rise. We have already seen something (Part One, Chapter II) of the intense activity of the monasteries and the part they played as intellectual centres. The imposing volume of translations and their repercussions on the evolution of Chinese thinking should not be underestimated, but we shall return to this subject when we come to study religious practice and thinking (Part Two, Chapter VIII).

A. Chinese Literati and the Examination System

Learning proper, by which we understand a system of institutions providing courses to groups of pupils in accordance with a set programme, belonged entirely to the world of the *literati* and, apart from a few exceptions, was based on Confucianist ideas. Although differing according to the epoch and to whether there was war or peace, learning, the source of technicity and profits, was always a mixture of governmental authority and private initiative. But in both cases it had always inculcated a respect which placed the master, both in China (*sien cheng*) and in Japan (*sensei*), on the same level as the father, and the professor-academician at the highest rank of the social hierarchy.

The chief purpose of the examinations was to produce a cultured, virtuous and competent man. The curriculum was based on a knowledge of the Confucianist classics and their interpretation and application to the problems of everyday life. Such knowledge involved the elegant manipulation of the language, the discernment of judicious quotations and the calligraphic training essential for these purposes. On this basis, the successive dynasties more or less adapted the curricula to the circumstances. The model remained the one which the T'ang dynasty borrowed from the Sui, with slight modifications. The examinations consisted of three degrees: the first was the series leading to the conferment of the doctorate (*chü*) which bestowed mandarin rank but no office; the second was used for recruiting officials on whom an office (*hguan*) would be bestowed. These examinations were open not only to the holders of a doctorate but also to the nobility, the court, sons of officials and distinguished persons nominated by the court. The third degree of examinations, which transcended the field of learning proper, was that of merits (*k'ao*). It consisted of an appreciation of the end of year reports, merits being fixed on

the basis of the four major qualities and the twenty-seven perfections or qualifications. The totals obtained by this method gave the marks for the promotion table.

Regular doctorates included that of accomplished scholar (*chin shih*) and classics (*ming-ching*) which were the two most highly valued; after these came those of law (*ming fa*), writing (*ming tzu*) and mathematics (*ming suan*). The three first doctorates represented old traditions, while the three last, created in the seventh century, conformed to new technical requirements and the specialization of offices. The senior doctorate (*chin shih*) examination consisted of three written tests: that of quotations, where the candidate had to complete a classical text which had been purposely garbled and modified (*t'ieh*); that of two literary compositions (*tsa wen*); and that of five dissertations in reply to questions (*ts'e*). The other doctorates, organized along the same lines, were supplemented by oral interrogations (*k'eu shih*). Once the examination had been sat and the degree conferred, successful candidates participated in the thanksgiving reception (*hsieh-en*), after which they took part, on the banks of the Chu-chiang in festivities attended by the crowds of friends and relatives, rather like the receptions and balls of the universities in our day.

Preparation for the examinations necessitated a thoroughly sound knowledge of the classics and attendance at administrative lectures. Those who studied at home by their own means sat an examination at their sub-prefecture, and then in their prefecture, so that they could be presented by the prefect (*hsiang kang*). For the prefect had to send talented men to the capital at a rate of three, two or one per year according to the size of the prefecture; exceptionally also, since the decree of 737, those nobles and sons of officials who were students by right (*sheng t'u*) at the national schools or universities, were presented by their masters. These privileged persons had a number of establishments at their disposal. First, there were the two universities of Ch'ang-an and Lo-yang. Each university had a number of sections, each corresponding to the social rank of a set of pupils and the subject studied: Section of Sons of the State (*Kuo-tzu-hsuen* or *Chien*); Upper Section (*T'ai-hsuen*); Section of the Four Doors (*Ssu-men-kuan*); and, as from 790, Section for the Propagation of Literature (*Kuang-wen-kuan*). These establishments were reserved to the sons of nobles and high officials, but exceptionally others could obtain access to the Four Doors if they had been classified among the distinguished scholars (*eh un Shih*). Three other sections of a technical nature were open to all: those of law (*lu hsuen*); writing (*chu hsuen*); and mathematics (*suan hsuen*). Two institutions, reserved to persons of the same status as those of the Sons of the State, provided a less strict education: College for the Development of Literature (*Hung-wen-kuan*); and College for the Exaltation of Literature (*Ch'ung-wen-kuan*). In fact, the Section of the Sons of the State operated as an academic centre, controlling the universities and high schools. Originally, the Section of the Four Doors was an elementary college taking in

about one-third nobles and two-thirds plebeians, but as from 662 it can be considered as being of university level.

Each of the three universities had about twenty professors, each of whom had one or two assistants and taught between 500 and 1,000 students according to the epoch. The latter were residents; they were provided with board and lodging and were subject to a discipline which was strict with regard to both dissipation and lack of attention. At the same time, there was a strict ritual governing relations between teachers and students, and the practices of the semi-private or private schools were retained. The candidate, carrying a basket containing rolls of silk, a bottle of wine and dried meat, presented himself before the master and, bowing low, addressed him in the following significant terms: 'As one who is to receive instruction may I presume to meet my teacher?' This ritual was not only in the tone of the relations; it was also the subject of lessons. For complementary subjects, students followed courses on the T'ang Ritual (*Kai yuan li*), the historic texts (*kuo-yu*), the etymological dictionaries (*erh ya* and *shuo wen*). Each lesson had to be the occasion for the professor to impart both practical and theoretical instruction on the moral virtues. But the nucleus of the studies was formed by the classics: great classics such as the *Li chi* (Book of Rites), medium classics such as the *Shih ching* (Book of Poetry) and minor classics such as the *Shu ch'ing* (Book of History). Courses were divided into two-classics (one great and one minor or two mediums), three-classics and five-classics courses, in addition to which there were the analects and the classic of filial piety. The school year was divided into six-month terms and ten-day periods interspersed with holidays and rest days. No matter what was the combination of studies, the latter, which began between the student's fourteenth and nineteenth year, had to last nine years or more.

B. Taoist Schools and Libraries

In order to conform to increasingly varied requirements, the emperor, in addition to these universities, founded in 741 a Taoist studies school (*ch'ong hsuan*) for about one hundred students and developed teaching parallel to that of the Office of Medicine (*t'ai-i-chu*): general medicine, acupuncture, massage and exorcisms. This widening of the horizon was accompanied by an extension of the institutes (*kuan*) and the libraries. In the tradition of the reading room of the elderly scholars, libraries were also used as study and teaching centres. The imperial palace had always had an archive and book depôt and existing works were continually being reproduced by the copiers. It was reported that in the sixth century there were 67,000 volumes of manuscripts at the court of the Liang dynasty; under the Suis, 51,000 volumes were copied, while the Buddhist copies came to an impressive total. The copyists then allied themselves with copy sellers who, like the bookstall keepers of today, supplied imposing private libraries containing from 10,000 to 30,000 volumes. So far as

the classification of rolls was concerned, the old system of the Seven Résumés (*ts'i lio*) was abandoned in favour of the Four Categories (*ssu pu* or *ssu k'u*): classics (*ching*); histories (*shih*), including collections of laws, biographies and geographical studies; philosophical works (*tsu*), including religious texts, technical and scientific monographs, and encyclopaedias; and, lastly, literary anthologies (*chi*). Apart from the problem of classification, those connected with the techniques of acquisition and bibliography were also studied. The prodigious increase in publications due to the development of printing (cf. Chapter I), thus made necessary a rationalization of methods.

The book, that precious instrument for learning, came into being at Sseu-chuan where, in the ninth century, it conformed to the popular requirements of Buddhism and Taoism. The court arrogated to itself the monopoly of publishing and entrusted the Imperial University (*Kuo tzu chien*) with all publishing rights; it only relinquished this privilege in 1064. By means of the book, China, by-passing the usual stages in the popularization of knowledge, was the first country to enter the modern age. The development of teaching and studies was considerable. The publication of dictionaries, the classics and historical texts made it possible to fill the gaps left by the teaching profession. That being so, it was possible, by studying the official corpus of classics drawn up and commented upon by Kung Ying-ta (574-648), to read for examinations without the necessity of going through the schools. The classics engraved on stone, like a 'standard metre' of the Middle Ages, had the force of law, and there was no longer any need to go to the capital to listen to the masters or verify copies.

Although, under the effect of a backlash, learning gave way to preparation for examinations, knowledge took over political spheres. As far back as the eighth century, such institutions as the Library of the Palace of Assembly of Wise Men (*Chi hsien tien shu yuan*) dealt as much with the classification of works and research as with conducting studies on the promotion of arts and letters, the advancement of science and political progress. Certain university establishments often supplied men of letters to the court, for the emperor wished to have them close to him so that he could form a privy council of them as and when the need arose. This calling, which transcended that of an academy, resulted in the development of a special institution improperly known as Academy of the Forest of Paint Brushes (*Han-lin*). The latter included all sorts of people, great scholars, poets or calligraphers, soothsayers and doctors, and Taoist monks. As a privy council, the Han-lin, consisting of favourites who dispensed both advice and distractions, was entirely under the control of the eunuchs and, as F. A. Bichoff points out in his monograph, constituted the instrument of the Buddhist party. After the troubles of An Lu-shan (cf. Part One, Chapter IV), the Han-lin was entrusted, on exceptional grounds, with political tasks which subsequently it did not relinquish. Its influence extended more and more to the detriment of the official departments; it took possession of all key situations, including the examining boards and the

Keeper of the Seals. With a dozen men of letters, assisted by secretaries who were so many spies in the service of the emperor, the Han-lin constituted the *executive par excellence* of the imperial power; it adapted itself to all situations, often sapping the traditional authority of the administrative bodies, and survived all vicissitudes. A scholar such as Wang Shu-wen, who sought to purge it, was finally ordered to commit suicide! But time succeeds where man fails. The Sung dynasty brought order to it and the Han-lin finished by acquiescing, though it still remained mixed up in important activities. To its credit it should be admitted that it started off a tradition of erudition which, under the Ming and Ts'ing dynasties, produced monumental historical and literary compilations.

The Sung dynasty not only made the Han-lin see reason but also perfected the instrument which they had inherited from the T'angs. State education was no longer reserved for the sons of nobles and officials. Everywhere, in prefectures and sub-prefectures, schools were opened and village schools were set up. It was accepted that the new theories should be taught officially, thus depriving them of their polemic character and favouring a fecund effervescence of ideas. On the other hand, the disciplinary system was not an unmixed benefit. The heads of colleges (*ch'ai chang*) responsible for maintaining order were assisted by groups of selected students (*yueh-yu*) who constituted so many active cells ready to organize those massive demonstrations which, by making or unmaking successive governments, were characteristic of Chinese political life. In spite of deviations and abuse, the example of the scholastic institutions rapidly spread to neighbouring countries where, as in China, their influence was, on balance, highly positive.

C. Teaching in Korea and Japan

In the Korean countries in 372, the very year when the Kokurye received a statue of Buddha and Sūtras from the Tibetan Fou Kien, master of northern China, there was founded a high school which was a forerunner of the National University, with a Chinese curriculum which the Korean élite, familiar with the culture of their neighbours ever since the Han dynasty, found easy to assimilate. The kingdom of Paegju adopted the Chinese school at the same time and in its zeal transmitted the Buddhist and Confucianist texts to Japan. The kingdom of Silla, which was less advanced, only developed when the country was unified. It too then developed public and private teaching establishments by adopting the curriculum of classical and technical studies of the T'ang dynasty and securing the assistance of accomplished scholars such as Choe Chi-woen, who had sat his examinations in China in 858. In the twelfth century, the Chinese Hsu Ching (1091-1153), on visiting Korea, described the flourishing state of its culture with its two libraries containing tens of thousands of works. Concurrently with the lessons provided for the nobility in the national institutions, schoolmasters and

monks gave lessons for the people. The traveller did, however, criticize the stagnation of this education. Under the influence of the great Confucianist teacher Choe Chung (984-1068), King In Jong (1124-46) extended the field of academic studies in keeping with the curricula of the Sung dynasty. These efforts were crowned under An Hyang (1243-1306) who brought Confucianist education to the highest level. With neo-Confucianism, introduced by Baeg I-jeong, there finally came a current of syncretism which neglected no form of knowledge. Then came, in the thirteenth and fourteenth centuries, a pleiad of scholars who, with U Do (1262-1342) and Gweon Bo (1262-1346) attained one of the peaks of Korean thinking.

In Japan, the neo-Confucianism of the Sung dynasty was not adopted until the seventeenth century, and T'ang methods of education were therefore used in Japan until the fourteenth century. From the seventh to the ninth centuries numerous cultural missions brought Chinese ideas to Japan. One of these missions was that of Kibi no Maki (693-775) who became a minister after staying in China for nineteen years. The organization of the institutions and the curricula were copied from those of the mainland, but here the part played by Buddhism was much more important—as is witnessed by the Institute of the Two Doctrines (*Nikyoin*)—than that of Confucianism or Taoism. The rivalry between these two schools of thought was not as deep-seated as in China, for there the social structures played a decisive part. The rise to power of the warriors during the eleventh and twelfth centuries resulted in a reversal of educational values. Under the shoguns of Kamakura, the prestige of arms was preferred to the belles-lettres which flourished at the time of Heian. This marked the beginning of a tradition of chivalry, the ethics of which were condensed in a sort of 'Warrior's Code'. The officials of the shogunate often wielded the sword with greater facility than the brush and the monks preferred the arguments of the swashbuckler to the less convincing methods of persuasive discourse. This really was an epoch when force had priority over learning. However, this was fortunately not a general trend; scholars continued to exist; teachers continued to dispense culture; and, under the indolence of an excessively refined élite, there lurked among the warriors a wider culture which was manifested by the intellectual awakening of the following centuries. Both in Korea and Japan, Chinese books had helped to spread doctrines and methods and mould the future of those nations.

Thus, Chinese books present the entire curricula of the scholastic institutions and all the new opportunities provided for the training of the mind. It should not be forgotten that books had become objects of everyday use under the Sung dynasty that, alongside the very carefully produced imperial editions of the *Kuo tsu chien*, there were many cheap editions and pocket books. The Chinese of the eleventh century could thus read dynastic histories from the beginning until the tenth century and become aware of their two thousand years of civilization; they could learn by reading the literary collections of the greatest writers and poets and understand them with the help of etymological

dictionaries; they could also consult the great encyclopaedias (*t'ai ping kuang chi*), and the precious blocks of the old autographs and plates; lastly, they could go to the sources of the religions by consulting the 5,000 volumes of the Buddhistic canon or those of the Taoistic canon, which were just as numerous. Thus, they could feel themselves to be masters of the universe, particularly as their language had become much more the indispensable vehicle of progress in the Far East than it had been in the past.

2. INDIA AND SOUTH-EAST ASIA

From the point of view of the orthodox Hindu, education is essentially a religious matter; the way it is done depends on the caste and is laid down in the *dharma* treatises. General education and vocational training are part of the far more general moral and spiritual education imparted to the pupil by his master—the *guru*. It is a long time, however—the beginning of the Middle Ages—since these old principles have been outmoded and rendered more flexible.

It would appear that Buddhism, collectivist by its very nature, first instituted communal education available to all, without any restriction as to caste or even religious persuasion. Thus was organized what might be called secondary education, whereas primary education no doubt remained to a large extent the monopoly of the minor priests.

A. Primary Education

According to foreign accounts, particularly those of Chinese pilgrims, and to certain indirect evidence, the basic instruction appears to have considered reading, writing and elementary arithmetic, together with cosmogonic and religious training and to have been very widespread, even down to village level. Girls were not excluded, since it is not rare to come across references to educated women, and in Kāshmir, for example, we learn that even women understood Sanskrit. Buddhism, which only admitted nuns to the community reluctantly, trained a number of personalities of great learning from amongst them.

The teaching language was mostly, though not exclusively, Sanskrit, although the Jains taught their pupils the canonical *prākṛit* and the Sinhalese monks taught Pāli. We can glean a few details from Chinese travellers, especially I-tsing. As from the age of six, the child learnt to read in the syllabary known as *siddham* (success); at the age of eight, he began Pāṇini, the treatise on which, he says, was learnt in eight months; this is an obvious exaggeration. No doubt he was speaking of an abridged grammar based on Pāṇini. The main thing is to note that the study of Sanskrit was part of the basic education. In addition to and parallel with grammar, logic, rhetoric, arithmetic and perhaps the rudiments of astronomy were also taught. It would appear that elementary notions of the applied arts (*śilpa*) and medicine were

sometimes imparted to all, quite independently of any specialization (according to Hsuan-tsang).

Teaching methods included memorizing by repetition. A teacher would have only a limited number of pupils gathered round him. Thus, an Ajantā painter of the sixth century shows us Buddha and his condisciples grouped at the feet of their preceptor.

This elementary education, incidentally, was supplemented on various occasions; the Indian people were immersed in culture of a high level for the epoch. Thus, pilgrimages provided an opportunity of supplementing the education of adults by means of sermons and lectures: the *purānas* (that 'Veda of the Sūtras and of women') served not only for the religious edification of the vast mass of the people but also for their secular education. Mixed up with the mythical, liturgical and cosmogonic information in these texts (for example in the Agni and Garuda *purāna*) there are historical, geographical, legal, medical and even grammatical notions. The same encyclopaedic mentality presided over the writing of the *Chaturvāg achintāmani* (the 'talismán of the quadrivium') a monumental work by Hemādri, minister to a Yādava king.

Vocational training was given within the corporation concerned. The pupil, whose period of apprenticeship was fixed in advance, lived in his guru's household and was initiated not only into the exercise of a trade but also into moral and religious life generally and to a way of life within the confines of his craft.

B. Higher Education

The intellectual élite of India was trained in the various colleges or universities, which were first set up by the Buddhists and then by the Hindus who imitated them. Numerous sovereigns founded colleges (*maṭhas*) and houses where students were received. Hsuan-tsang tells us that a few scholars devoted their entire lives to study, but the majority finished their university education at the age of about thirty. Some then went to show off their knowledge at the royal courts in the hope of obtaining a sinecure.

In northern India, the most important cultural centres were Valabhī, Kanauj (which was more than just a political capital), Banāras, Mathurā, Odantapuri, Ujjayini, Dhārā (where Bhoja founded a college), Srīnagar (in Kāshmīr) and above all Nālandā and Vikramaśīla.

According to I-tsing, advanced students spent two or three years at Nālandā or Valabhī completing their education. As from the time of Hsuan-Tsang, there were about 100 monasteries at Valabhī inhabited by a total of about 6,000 monks who, unlike those of Nālandā, belonged to Hīnayāna.

Nālandā was an intellectual centre as from the fourth century, and Harsha bestowed upon it a gift of a hundred villages, which made it possible to lodge a large number of students free. However, the great Buddhist university benefited above all from the foundations of the Pāla sovereigns. Although burnt down in the eleventh year of Mahipāla, undoubtedly by mountain tribes,

it was soon restored and richly endowed. Among the most renowned of the teaching staff, it is worth mentioning the grammarian Chandragomin, and Chandrakīrti, who was above all a logician. Śīlabhadra, a very cultured abbot who had just succeeded Dharmapāla as rector when Hsuan-tsang arrived and was the master of the famous pilgrim, managed to impart to Nālandā the decisive impulse which made of it an international intellectual centre, one of the very first in Asia. He introduced advanced education on a broad basis, which was not exclusively Buddhist, for in addition to the exegesis of Buddhism, logic, grammar, medicine, architecture, agriculture and even Hindu philosophy were taught.

Hsuan-Tsang, who spent about five years at Nālandā, has succeeded in evoking the intellectual effervescence which reigned there. The university became famous as far as the Far East for the beauty of its monasteries and their appointments, the wealth of its library and, above all, the erudition of the teaching staff and the level of the students. Into its orbit were attracted students from China, Japan and Korea—fifty-six of them came between the times of Hsuan-Tsang and I-tsing, or about forty years. An inscription informs us that Bālaputradeva, king of Suvarnadvīpa (i.e. Sumatra) founded a monastery which was endowed by Devapāla. Nālandā also made a considerable contribution towards spreading Buddhism towards Tibet, and it was Santarakīṣa, an abbot of Nālandā, who founded the first monastery there in 749.

The University of Vikramaśīla, the reputation of which exceeded that of Nālandā—if that were possible—was founded by Dharmapāla, who was also the founder of the monastery of Somapura (at Paharpur); unlike Nālandā, it was not the result of successive extensions and endowments, but was organized on a systematic plan right from the start and included 108 temples and 6 colleges among which 108 teachers were distributed.*A teacher's committee, with the rector as chairman, controlled teaching activities and ensured a certain degree of co-ordination with Nālandā. The *dvārapandita* (gatekeepers) assumed the functions of directors of studies and selected students.

Even more than Nālandā, Vikramaśīla supplied Tibet with missionaries, the most renowned of whom was Atisa (first half of the eleventh century). It even appears that, for a certain period, there was a house reserved to Tibetan students at Vikramaśīla. A considerable effort of translation was accomplished in the great universities of Bengāl and in the mountainous provinces of Kāśhmīr and Nepāl, where there were many Tibetans. The Vikramaśīla teaching staff made a considerable contribution to this task. Many leading Tibetan monasteries were study centres, such as those of Lhāsā, Bsam-yas (Samye), before the Glang-Darma persecution, and those of Tholing and Tabo in western Tibet (Spiti) and lastly the monastery of Sa-skyā, where Śākyasrībhadra, a great Kāśhmīri scholar who was rector of Vikramaśīla at the time when the great university was destroyed, worked for many years.

For, finally, the Turko-Afghan raids of Mohammed Ghori put a brutal end to the activities of the Buddhist universities of Magadha. The Moslem

historians relate how a party of 200 horsemen, taking by storm what they took for a fortress, massacred all the 'close-cropped Brahmins' they found there, before they noticed, as a Moslem historian admits, that 'the fortress and town were only a college which, in the language of India, is called a Vihār'; and the name has remained in the country. (Bihar.)

The monks who were able to escape during the sack of Vikramaśīla, including the Kāshmīri Sākyasrībhadrā, reached Jagaddala—another university founded by a Pāla sovereign round about 1100, which it would be a pity not to mention, if only to emphasize the interest devoted to learning by the last protectors of Buddhism in Magadha. Jagaddala was destroyed in its turn. Sākyasrībhadrā and a large number of monks reached Tibet, while the others fled to the Indianized states of South-east Asia.

Thus, monastic Buddhism was extirpated from its country of origin and the incomparable working instrument constituted by the libraries that had been progressively enriched over the centuries was irrevocably destroyed. When specialists in Buddhism nowadays wish to consult the many works of which the Sanskrit originals have been lost, they turn by preference to Tibetan translations.

But during the twelfth century Brahmin universities had been founded—one at Mithila by Gangesa and one at Navadvīpa by Laksmanasena; and these centres of learning, far from being destroyed, remained in existence under the Moslem occupation and were particularly concerned with logic. In fact, it was only after the conquest that the high peak of the Brahmin school of logic was attained. This is another proof that Islam, while striking a terrible blow at the traditional civilization of India, did not on that account interrupt its development.

Although the Deccan did not have a university which could bear comparison with Nālandā or Vikramaśīla (except perhaps Kāñchī where Dignāga was probably educated), higher education establishments were no less numerous there than in the north. The *maṭhas*—or university-monasteries—undoubtedly copied from the Buddhist institutions of the same type, would even appear to have been of southern origin in the first place and the most famous was at Kanoi.

From inscriptions, we also know of many colleges attached to temples; thus, a minister of the Rāshtrakūṭa Krishna III founded at Salotgi (district of Bijāpur) a temple including a college of Sanskrit, which was so successful that twenty-seven residences for students had to be built. The Chōlas founded numerous centres of Vedic studies, and inscriptions frequently mention annexes to the college—a residence, a hospital and even, in one case, a maternity ward. At Belgaum in Mysore there was a teaching establishment to which were attached three dispensaries and where not only Veda and the philosophical systems but also literature (poetry and drama) were taught.

Lastly, we should set aside, owing to the links uniting them and their deliberately pan-Indian character, the Four Advaitamaṭhas—the convents

(where doctrine was taught) of non-dualism, founded by Śaṅkara at Pūri, in Orissa, at Sarada, in Kāthiāwār, at Josi (Badrinath) in the Himalayas, and at Sringeri, the Mysore.

C. Logic and Controversy

The Hindus, and even more the Buddhists, made great use of the group discussion of a subject as a method of education. Meetings among men of letters were much appreciated, arguments between different religious groups were intense and often polite, and controversy sometimes even constituted a sport for scholars. This attitude still remains, although in a caricatural state, in certain contemporary Tibetan controversies, where the adversaries throw arguments at each other before an audience of connoisseurs. Hence the care devoted to the dialectical training—both theoretical and practical—of students and the interest taken in methods of ratiocination.

But under such circumstances, it is difficult to distinguish between logic and rhetoric, since originally it is just as much the art of persuading the other speaker or demolishing his argument as it is the art of reasoning clearly.

Moreover, logic, particularly its negative side, encroaches upon the criticism of knowledge. For the origins of this tendency we must go back to the *Prajñāparamita* and to Nāgārjunian criticism, which worked out a fairly efficacious dialectic for this purpose, consisting of demonstrating the absurdity of any idea put forward by the adversary and based on the axiom that everything which truly exists is immutable, and therefore eternal, while any production of effect supposes a modification of the cause. But this aspect loses nothing of its importance in the Middle Ages, for the problem of the reality of the sentient world—and thus of nature and of the reality of Man—rules the whole of an essential part of metaphysics and soteriology.

Logic is therefore a matter of school, at least so far as the principles governing its constitution are concerned. It would be as well to distinguish not only a Hindu, a Buddhist and a Jain logic, but also to study the divergences, which are sometimes serious, between the various systems. In fact, it is more important to attempt to discern, through these various theses, Indian ways of thinking.

The Jains worked out a doctrine in which it is possible to recognize archaic features, argued and systematized at a later date; this is undoubtedly the most curious production of the Indian logicians. This is the doctrine of 'perhaps', which points out the relativity of truth, based on an examination of the methods of approach to reality. Briefly, the results of Jain investigation may be summed up by enumerating seven possibilities: a proposition may be true ('it is warm') or not true ('it is not true that it is warm'), or be both true and untrue according to the point of view ('warm for some but not for others') or indeterminable as to its truth or untruth ('it is neither warm nor cold'), true or indeterminable, untrue or indeterminable, or true or not true or indeterminable.

There is therefore no incompatibility between contradictory assertions providing they are made from different points of view.

This theory, which provides the Jains with a formidable weapon for discussions, is rejected by the Buddhists as being impregnated with scepticism. But it is foreshadowed by the old argument which the Upanishads apply to the transcendental and which consists of denying contradictory propositions, and also by the scepticism of the *ajñānavādins* of which Buddhist sources speak. In this connection, does not an old Buddhist text say of Buddha: 'One cannot say: he is, he is not; he is and he is not; neither he is nor he is not' ? As we shall see later, the Mādhyamika school applies a similar reasoning to vacuity. The Jains merely systematized a tendency of Indian thought to consider the multiplicity of the aspects of reality without neglecting the possibility of the existence of reasoning inaccessible to the penetration of our intellects.

Hindu logic and Buddhist logic developed along parallel lines and exchanges between the two were numerous. Both were concerned, *inter alia*, with two things: the criteria of knowledge and proper reasoning.

The word for the sources of true knowledge is *pramāṇa*, which derives from the root *ma* (to measure) and another meaning of which, in the aesthetic field, is the canonical proportion of a work of art; this helps to explain its acceptance in the philosophical sense. For after all, the word refers to the existence of a norm to be discovered above and beyond the appearances which this norm does not fully take into account but which cannot be incompatible with it. It should not be forgotten that, so far as India is concerned, the evidence of the senses concerning reality is often more or less subject to suspicion. From the point of view, therefore, of a dharmakīrti—a Buddhist logician of the idealist school—it suffices that true knowledge does not contradict experience. In this case, knowledge is assumed to create its object and truth results from the proper activity of thought. From this example it may be imagined how the conception of the psychological mechanism of knowledge may rebound on logic.

The Brahminical system known as Nyāya sets out to be a complete system crowned by a theory of deliverance; the texts (Sūtras) which lay down the basis of it perhaps belong to the third century, but were frequently commented on in the Middle Ages; and yet this is essentially a logic which, while realist in spite of being Theistic, is opposed to the Buddhist definition of the *pramāṇās*. So far as this school is concerned there are four *pramāṇās*: perception—or rather the realization resulting from it; inference, whether by induction, deduction or analogy; comparison—the reference of the unknown to the known; and the authority of tradition, which places Nyāya in an orthodox Brahminic context. It should be pointed out that Buddhism refutes as a criterion of true knowledge any scriptural authority.

Elementary reasoning, as described by both Buddhism and Nyāya, is of the syllogistic type, but the presentation has varied a great deal. Here is the five-part reasoning, applied to a classical example, as described by Nyāya:

1. There is a fire on the mountain (proposition);
2. because there is smoke (reason invoked);
3. for where there is smoke there is fire (explanatory proposition: universal major premise);
4. example: the kitchen;
5. therefore that is what's happening on the mountain (application of major premise);
6. therefore there is a fire on the mountain (repetition of initial proposition by way of conclusion).

Here is another example, taken from the philosopher Śaṅkara:

1. Proposition: the cause of the world is an intelligent principle;
2. Reason: because the world has an order of finality;
3. Major premise: wherever there is an order of finality there is guiding intelligence;
4. Example: this is the case with the handiwork of a craftsman;
5. Application: therefore, there is such an order in the world;
6. Conclusion: the cause of the world is therefore an intelligent principle.

It will be noticed that this reasoning, unlike the Aristotelian syllogism, does not contemplate a presentation reduced to the essential. It is done in order to bring persuasion to bear during the course of a controversy and therefore does not shrink from repetition. The Buddhist logician, Dignāga, on the other hand, was concerned with briefness in his inference, which he called 'for one's own use', but he developed reasoning 'for the use of others', distinguishing between the proposition to be proved, the subject of the controversy and the reason, which constitutes a middle term between the two. For example, the existence of the fire (element to be proved) on the mountain (subject of the controversy) is inferred from the smoke (reason).

But between the Indian syllogism and Indian reasoning there are even greater differences: in the case of the syllogism, the minor term is included in the extension of the middle term, which itself is included in the extension of the major term. Now the cause of reasoning by Buddhist inference, like the five-part reasoning of the Nyāya, is not necessarily of this type, and Dignāga emphasizes this by calling the middle term either *hetu* (reason) or *linga* (index) while smoke is a sign and fire the thing signified. Moreover, India, which is sometimes reproached for lacking a sense of the concrete, always insists, in a reasoning process, upon the production of an example. So far as the Greek logicians are concerned, the only thing that counts is the validity of the reasoning and not the validity of the conclusion. But the criticism of the validity of the conclusion of an inference was studied in detail by the Buddhist logicians.

Nyāya, freeing itself from the religious speculations which surrounded it, became increasingly interested in the art of reasoning as such, independently

of the validity of the knowledge acquired by such reasoning. Thus, towards the end of the twelfth century there was set up in the universities of Mithila and Navadvīpa the *tarkashastra*—the school of Navanyāya—which had its best results in the fifteenth century and which, if it had continued along its chosen way, would have heralded modern logic, both by its trends and its methods.

The jurists, philosophers and specialists in the various sciences thus had a remarkable tool at their disposal. They used it to produce works which often take the form of commentaries on previous books. When the latter were enlightened texts, recognized as a valid means of knowledge (*pramāṇa*), the commentary consists of a literal and even grammatical explanation. It is not possible to study here the technique of these commentaries, which owes a great deal to a system other than Nyāya—known as Mīmāṃsa, the purpose of which is the exegesis of the Veda. But at least an example of the extreme subtlety of certain discussions should be given. In this sphere, examples are more eloquent than theory.

The philosopher Śaṅkara explains that the Brahman is characterized indivisibly as knowledge, reality and infinity, but that these are not the attributes of Him who cannot be qualified by diversity. Whereas objects are defined by the fact that they belong to a kind, that which eludes all classification can be apprehended indirectly. 'Brahman as knowledge,' he writes, 'is not what the word knowledge directly expresses. Nevertheless, as knowledge it is expressed indirectly—although not directly by the word knowledge, the object of which is an attribute of the finite intellect and the proper expression of which is a (finite) reflection of this (infinite) knowledge.'

In this distinction between the various kinds of meanings of words—here the proper sense and the indirect sense—there may be seen a tendency which is very characteristic of Indian thought. Similar prepossessions will be found under various headings—for example, in connection with the concept of vacuity in the Buddhism of the Middle Way or in the sense suggested in poetry. Several scholars and philosophers protested against certain refinements which they considered excessive or even sterile. But here is how Rāmānuja refuted the dialectical subtleties of Śaṅkara. In order to comment on the same proposition—'Brahman is reality, knowledge and infinity'—he applies himself to the grammatical significance of the co-ordinating link between the three terms: reality, etc. On the one hand, he shows that this plurality of attributes is inapplicable to an undifferentiated substance which a single word would suffice to characterize by excluding that which it is not; he thus rejects the Śaṅkara's conception of the Brahman. On the other hand, functional co-ordination is only justified if the various attributes refer to one and the same thing and it renders the distinction between proper significance and indirect significance useless: '[It cannot be claimed that] the diversity of qualifications of one and the same thing involves a diversity in the subject of these qualifications and thus a plurality of things as objects of this plurality of

words, which would also be in contradiction with functional co-ordination, since the aim of the latter is to make it known that one and the same substance is qualified by a plurality of qualifications.'

Here, the argumentation is precise, scrupulous and intricate. Elsewhere, on the other hand, it is rapid and incisive and the replies succeed one another in short sentences, imparting to the controversy a rhythm and an almost dramatic tension.

And yet, such quibblings may appear somewhat sterile, even when the point at issue is of importance. It is reasonable to wonder whether they do not absorb in sheer loss resources of ingenuity which would be better employed in a truly creative effort, and whether the very process of expressing one's personal ideas by explaining or criticizing a previous work is calculated to foster a creative spirit. There is no question of covering up the real disadvantages connected with this method, but it should be emphasized that, sometimes, perfectly new ideas have succeeded in being expressed by this means and that several commentaries are impregnated with a profound originality; secondly, since this chapter is devoted to the training of minds, that the commentary technique constitutes a remarkable form of mental gymnastics, well designed to sharpen the intellectual tool.

3. THE ARAB WORLD

A. The Educational and Cultural Background

Under Byzantium, educational institutions throughout the Mediterranean basin flourished, disappearing only under the pressure of religious intolerance. The suppression of the school of Edessa, by the Emperor Zenon in 489, because of the Nestorian leanings of its teachers, was of some cultural consequence in that the teachers reconstituted the school on Persian territory, not far away, at Nisibis. The well-known result of this transfer was to earn for Nisibis the title conferred on it by the Nestorians, of 'Mother of the Sciences'. 'Nisibis boasted illustrious teachers, famous scholars whose works are known and in part extant, and is of particular interest to us in that its first regulations, set down on paper from the beginning, are still available to us and provide valuable information alike as to the internal organization of the school, the condition of the Syrians who attended it, and conditions in the town of Nisibis itself, permitting the reconstruction of an important chapter of the history of intellectual life and Nestorian monasticism in the fifth and sixth centuries.' (J. B. Chabot.)

Justinian's action in 529 in closing the Academy of Athens was a measure to stamp out paganism. It is referred to here because a number of the academy teachers took refuge for a time in Persia. At this period, indeed, the Sassanid empire was to welcome with pleasure and profit the scholars whom Byzantium exiled.

Action to expel the Nestorians had become general. 'The latter spread out over Mesopotamia and Iran, and special Christian schools were founded in which instruction was given in Greek medicine. The most famous of the medical schools was at Djundaishapur. This outlived the Sassanid kingdom to continue as an important centre of medical science through the first centuries of Islam.' It should not be forgotten that 'it was with the reign of Chosroes II (590-628) that there opened the great age of literary and philosophic civilization in Iran.'

An Arab historian of science assesses thus the considerable importance of the medical school at Djundaishapur: 'These doctors made rapid advances in their science, promoted new methods of treatment of sickness by medicaments, and were of a skill so outstanding that their methods were held superior to those of the Indians or the Greeks. They did in fact adopt the scientific methods of other peoples, and improve on them in the light of their own discoveries, and in addition went on to deduce medical laws and to write advanced treatises. In the twentieth year of the reign of Chosroes, the doctors of Djundaishapur came together in an assembly at the behest of the sovereign for the discussion of certain problems. It was a memorable conference, presided over by the king's own doctor, and attended by other practitioners. The most cursory glance at the questions and discussions suffices to register the knowledge and experience of these doctors.'

Education in the Sassanid Empire

An attempt has been made by Christensen to clarify the picture of instruction in the Sassanid empire, and it is his conclusions that are summarized here. Scant information is available about the educational system, and about elementary education none at all. Teaching was, in general, the province of the clergy, who could between them cover all branches of knowledge. Sons of the high nobility were educated in part at the court with the young royal princes, learning to read, write, and count and to play tennis and chess, ride and hunt. The nobleman's education centred primarily, of course, around practice in the use of arms. Education, physical and spiritual, finished at fifteen, at which age the young man would be expected to know the tenets of his religion and the destiny and duties of men. According to one young page, he had learned by heart the principal parts of the Avesta and the commentaries and had, in the course of his secondary education, studied literature, history and eloquence, and the arts of riding, archery and the handling of lance and battle-axe. Furthermore, he knew a good deal about music, singing, and astronomy, and was an excellent chess-player. He had also displayed before the king his proficiency in matters of gastronomy and dress.

Dr Max Meyerhof has drawn attention to the information to be gleaned from Arab writers about the origin of certain Mesopotamian institutions. We learn from Mas'udi, for instance, how the centre of instruction in Alexandria was, under the caliphate of the Umayyad Omar II, transferred to Antioch,

and then, in the reign of the Abbasid caliph Mutawakkil, established at Hanan, the focal point of the Sabaeen sect. Later, certain of the professors moved to Baghdad and taught there; whence it came about—and this is a matter of some importance—that the philosopher, Farabi, found himself as a student the pupil of one of these teachers who was lecturing in the Mesopotamian capital. These examples enable us to say that in Syria, Mesopotamia, and Persia the civilization which the Arabs met with was highly developed culturally, Syriac in expression, and imbued with ideas both Hellenistic and Iranian.

Writing and the Diffusion of Learning

'At the beginning of the sixth century, the people of northern Arabia wrote a script which was derived from the cursive script used three centuries earlier by the Nabataeans of Petra. The script is unfortunately not known to us in its ordinarily current form, but only in a hieratic one, in two sanctuary inscriptions; one (Greco-Syriac-Arabic) was at Zebed (Aleppo region) of 512, the other (Greco-Arabic) at Harran (south-east of Damascus) of 568.' There is a third inscription at Umm al-Djimal. In the hands of the stonemasons, this writing is stiff and angular, in every respect comparable with the Kufic that flourished later in Iraq. It is a *scriptio defectiva*, in that consonants and long vowels are recorded in it, but never short vowels.

'All the evidence indicates that this script was also known in western Arabia in the last quarter of the sixth century, leading up to the birth of Mohammed in Mecca. Imperfect as it was, it sufficed to meet the needs of the courtiers and money-lenders of that business city, as well as those of the landowners of the region. It was a rudimentary instrument, but it was adequate to the purposes for which it was required, the drawing up of contracts of various kinds, and for letters which were usually brief in the extreme.' M. Blachère, to whom we are indebted for these reflections, concludes: 'The man able to handle a *qalam* and decipher a document enjoyed a measure of respect.'

Traditionally, shoulder-blades and palm leaves were used for writing on. In Mecca and Medina there was much keeping of written records and the Koran presupposes the existence of 'registers and files'. It is a natural assumption, as Gaudefroy-Demombynes puts it, that these pre-Islamic merchants could write. Their interests were too manifold and complex for them to have been able to dispense with documentary records (Koran II, 282). For the Meccans writing was doubtless simply a means to a commercial end, not a means of intellectual development. 'After the defeat at Badr, the Meccans taken prisoner that day found themselves detailed by their Medina captors to the task of teaching. All these prisoners, even the poorest, were capable of teaching the sons of Medina peasants how to write.'

Some parts of the Koran may have been taken down in writing during the Prophet's own lifetime, by the scribes to whom he dictated the revelations which had been vouchsafed to him, but such cases were exceptional, and did not form part of a planned scheme of compilation. A verse of the Koran from

the Medina period (II, 73) however, does indicate that copying of the Holy Book already constituted a profession. Passages also occur in the Koran which refer to the celestial archetype or to the balance-sheet of individual actions, in such words as: 'We shall confront him with a roll he will find unrolled' (XVII, 14), or: 'In writing traced on a spread parchment' (LII, 2-3). The writing was, of course, difficult to read and only in recitation could there be the certainty of avoiding confusion. There comes to mind the comment of Raymond Schwab, for whom oral transmission remained a method of high fidelity as compared with 'the professional blunderings of never-ending copyists', the more so in view of 'the heights of perfection long ago attained in memorizing techniques'. One Arab writer explicitly declares that all knowledge should be transmitted orally, and that nowhere is this more necessary than with religious teaching or, to an only slightly lesser extent, with poetry, where there are unusual expressions, dialect variations, unaccustomed language, and the names of trees, plants, places, and water-sources. Mention has also been made, with some justification, of a prejudice that oral transmission was alone admissible.

Writing versus memory. Writing then, was, for a long time, not an activity engaged in very widely, even after the invention of paper. It is asserted that the Umayyad caliph, Walid II (744), had compilations of poetry made; but the fact that the great transmitter of pre-Islamic poems, Hammad Rawiya, found it necessary to commit so great a quantity of verse to memory indicates that he had no such collection at his disposal. Lammens, who has dealt with this question, writes: 'Though Akhtal was apparently able to write, it is doubtful whether he ever thought of written transcriptions as a means of popularizing his verses, and the same comment applies to his contemporary, Dhul-Rumma.' Omar ibn Abi Rabi'a, on the other hand, committed certain of his love poems to writing and there were collections of his poems in circulation. Finally, the importance of the rhapsodes is not in doubt. Some acted as rhapsodes voluntarily—friends of the poet and admirers of his talent—but there were also professionals for whom this was a trade and a living, on occasion even a preparation for the future assumption of the rôle of poet. On reflection, it is clear that at the death of Abu Nuwas (c. 814) not a single manuscript of any of his poems was to be found. The comment of an Arab historian writing of 760 is worth noting: 'The scholars of Islam began to make written compilations of the traditions, law, and commentaries on the Koran. Studies in Arabic philology, language, history, and feats of arms, were assembled in books. Hitherto, most scholars had spoken from memory, or transmitted their knowledge on odd sheets only. Study was now made much easier, and there was less learning by heart.' The philologist, Asma'i, no longer trusted simply to them down on paper, as did Sufyan Thauri with his work on the traditions; and Malik Ibn Anas, teaching at Medina, provided his students with written texts.

Writing as an art. Writing was an art often referred to and the poet Salama ibn Djandal mentions inkpots and parchment. In the Koran, too, we read (XXXI, 26) 'If all the trees on the earth were to become *qalams* and the sea be swollen by seven more seas of ink, this would suffice not to set down all the words of God.' In the old poems, the traces of an abandoned camp are sometimes compared to written characters. The poet Labid speaks of 'the slave of the Yemen who was acquainted with the art of writing'. He has also another line: 'The pen of a writer renews the strokes of characters which time had effaced.' Another ancient who added a postscript to one of his *qasidas* in the form of three reflections, introduced them thus: 'So says he who dictates the writing on the parchment while the writer sets it down', which is an important piece of evidence that the custom of writing down gnomic utterances already existed in pre-Islamic days. Diplomatic treatises were of course given documentary form, and it is inconceivable that the Ghassanid or Lakhmid Arab courts made no use of writing. It has, in fact, been claimed that the poet Adi ibn Said conducted the correspondence of the Sassanid court in written Arabic.

Writing had established itself in rough and ready fashion in certain spheres, but men felt a desire for an extension of the range of its use, and in the cultural field a twofold preoccupation with the knowledge of the language and knowledge of the old poetry now became apparent. It entailed minutely detailed research and the desire for the rapid publishing of the resultant attempts at work of erudition became apparent. Efforts were energetically directed towards the assembling of ancient poems and men looked forward to the day when these might be collected in volumes, and libraries founded. The investigation of traditions was embarked upon with the same determination and the biographies of these first chroniclers of the traditions are eloquent about the zeal of these pious pilgrims in their journeyings from town to town in search of material. It was a sort of fever, and it is in this connection that a *hadith* of Mohammed has acquired general currency, together with a misleading modern interpretation that curiously distorts the meaning: 'Knowledge is an obligatory duty for every Moslem.' The knowledge there referred to was, exclusively, sacred knowledge—the reading and correct interpretation of the Koran, and research into the criticism of the *hadiths*; and it was this knowledge that another tradition recommended the Believer to go in search of everywhere, even to China. Here we meet again, with these specialized itinerants, the phenomenon of movement of scholars, which we have already studied as it manifested itself at the end of the Middle Ages in Europe. The great initiator of these traditional studies, Bukhari, travelled extensively in pursuit of them, reaching, among other places, Balkh, Merv, Nishapur, Raiy, Baghdad, Wasit, Kufa, Basra, Mecca, Medina, Homs, Damascus, Cæsarea, Ascalon and Fostat.

As the manufacture of paper progressed, the classical language tended to become more fixed in form, and manuscripts circulated from one end of the empire to the other. Signed work of the famous copyists, whose names the chronicles have carefully put on record, was bid for in gold. Such copyists are

the only artists the authors have done so much for; it was the least they could do in return for the enhancement which accrued to their own reputations from their association with the names of the copyists.

Collections of manuscripts were many; even while an author still lived, scribes were commissioned to multiply copies of his work. Some works attained the honour of appearing in several editions; such distinction was accorded to Mas'udi's *Golden Meadows* and the *Biographies* of Ibn Khallikan. Men of letters had no hesitation about making summaries of their books themselves, to bring them within the reach of the less wealthy and to increase the number of their readers.

This was a splendid era, indeed, in which caliph, ministers and rich individuals were founding fine libraries, assembling precious manuscripts, showering gold on translators and honouring scholars. The most important libraries retained their own copyists and book-binders; special mention should be made of the library of a learned man at Hamadan, where Abu Tammam gleaned the elements of his *Hamasa*.

Bookshops. Bookshops were often situated around the town's principal mosque; they were much frequented, scholars and men of letters using them as places where they could gather. The bookshop was also where one engaged one's copyist. In the east as elsewhere, these shops were veritable reading-rooms, the meeting-place of the cultivated—did not Djahiz take up permanent lodging in bookshops? A measure of their importance was revealed when the book-sellers were summoned by the public authorities and forbidden to sell or purchase particular books, as happened after the condemnation of Halladj.

B. Diffusion of Learning

If we turn now to education in the stricter sense of the term, we find the singularly rapid expansion of Islam scarcely explicable save in the light of a methodically organized educational system. It remains, however, very difficult to assemble sufficient detailed information about either the content or the regulation of education to make possible an over-all assessment. What follows is a mere breaking of virgin soil, all the statements in which are perforce provisional. As everywhere, the provincial areas lagged far behind the large cities that gave Islam its character, and had a social development—in detail still largely obscure to us—of a quite different tempo. The question of roads was an important factor here; places not located on the main commercial highways probably remained groupings of peasants and craftsmen, lacking any real measure of intellectual life, and by-passed by the march of civilization.

Elementary Education

At first, not surprisingly, writing played a small part, a basic fact which was to have its effect on centuries of scholastic discipline. The method of instruction made its demands primarily on memory, as the rhapsodes (*rawiya*) and

Koran-readers (*Kurra*) had done from earliest times. The child learned to read and write—in itself no small matter—and then had to learn the Koran by heart and to intone it according to clearly prescribed rules. The Koran was thus the essential basis for both the instruction and the education of the young Moslem. To have learnt it by heart was not only to have accomplished a work of piety but also to bear, among contemporaries, the mark of a scholar. Historians took the trouble to record for posterity the names of those accomplishing such a task of memory. The *hadiths* were equally certainly used very early for teaching purposes and were followed by the rudiments of arithmetic and letter-writing and some poetry.

Mnemonotechnics, of course, abounded: Arabic literature is rich in didactic verses, intended for students of history, astronomy, and mathematics and, above all, of law and grammar. 'The extraordinary favour in which the Moslem held didactic verse was bound up with the methods of instruction in force in their universities, which called into play almost exclusively the memorizing faculty of the student, and made little attempt to develop his intelligence. Routine was the time-honoured procedure for the teacher who could manage without a copy of what he was explaining, since he knew it by heart from childhood. Such were the main features of this pedagogy.' (H. J. P. Renaud.)

This elementary instruction was given in generally mean surroundings and, according to the treatises of *hisba*, children were not permitted to be taught in the mosques, lest they should mark the walls. We read that classrooms were found for them among the shops in street and market. In Tunisia, one came upon numerous elementary schools where the children were taught to read, write, count, and recite the Koran, and were given a cursory introduction to grammar. Of the life of these schools, the *kuttab*, we have an account in a most curious document. It is a compilation of custom-law entitled *Rules of Conduct for Masters in Schools*. The contents go back in a great measure to Sahnun himself, in the ninth century. (William Marçais.) The programme as described by Sahnun may be summarized as follows. Until mid-morning, the children were made to read; instruction in writing took up the rest of the day, with intervals for recreation. Tuesday afternoon and Thursday morning were set aside for revision of what had been learnt. Friday was a holiday; there were from one to three days' holiday at the feasts of Ramadan, and from three to five at the times of the Sacrifices. School fees were calculated either monthly or annually; legal provisions gave judges the right to settle differences arising between parents and teachers, either over the children themselves or over the fees.

The curriculum was divided into two sections: an obligatory one including the teaching of the Koran, religious instruction, reading and writing; and an optional, embracing pre-Islamic history, the history of the Prophet and his companions, poetry, grammar, composition, vocabulary, arithmetic and calligraphy.

Instruction in the Koran was treated as a matter of quite especial seriousness. The pupils were first made to read the whole text. They were then required to learn as much of it by heart as lay within their power, to absorb a grammatical analysis of the whole thing and finally to write it in the traditional form together with a clear interpretation.

Some idea of the primary school in the Middle Ages can be gathered from descriptions of modern ones. All the scholars are gathered in the one room learning or reciting aloud the lessons set them. The resultant noise can be imagined; it must take hardened instructors to survive it. The children have, in addition to the custom common to all countries of chanting their recitation or reading their lessons aloud, another habit of continually swaying the upper part of the body; this perpetual motion, in combination with the sound of all the discordant voices, must make teaching in an Arab school a unique experience.

Children defaulting in their work or lacking in respect in their attitude to teachers are punished very severely. The worst penalty is well known, the *bastinado*. The culprit lies on his back on the floor, while assistants hold up his legs for the shaikh to place his feet in what is known as a *falaka*. The shaikh then whips the soles of the pupil's feet with fine palm branches.

'It is likely,' writes M. Pellat, 'that well-to-do families had their children educated at home by a tutor, while the worse-off had to be content with the state school. The father sent his son to the *kuttab* of the district, where he learned to read and write, picked up the elementary ideas of grammar, and did some rudimentary arithmetic; he then learnt the whole of the Koran by heart by chanting it.'

The historian, Suli, the tutor to the children of the caliph, gives us his profession of faith and his programme of studies: 'I found two boys, sensitive, intelligent, and with common sense, but with heads empty of knowledge. I inspired in both a love of knowledge, and bought for them a fine array of works of law, poetry, philology, and history. Rivalling each other in zeal, they each of them made up a library and studied, under my guidance, history and poetry. Then I told them that the *hadith* was a study more worthy of them and more to be prized than all others, and should be embarked on straight away. The two princes also studied under me numerous works of philology.'

The schoolteaching profession was held in low esteem, and a phrase in common use ran: 'stupider than a schoolmaster'. This attitude is, we fear, not peculiar to Moslem civilization! The literature is hard on the teachers, but this may well be the kind of cliché to be noted elsewhere. It is going too far to hold that (as has been claimed) 'the teaching career was in the first century of the Hegira the object of the most profound contempt'. Early Arab authors give lists of teachers, some of whom taught without remuneration.

Secondary Education

Instruction at a slightly more advanced level was given in the mosques. The

picture of the students sitting in a ring (in Arabic, *halka*), around a teacher seated with his back to a column or pillar has become familiar; and such a grouping was customary almost up to the present day. In the primary school, in the mosque and later, in the *madrassas*, pupils sat cross-legged on the floor on straw mats. The maintenance of discipline was a constant problem for the teachers, interruptions showering on them from all sides, from students not hesitating to ask questions. It was a state of affairs about which certain instructors made bitter complaint. The philologist Tha'lab informs us: 'I followed the lectures of Ibn A'rabi (c. 846) in company with some hundred others. I attended classes of his for more than ten years, and he answered all our questions without ever having a book in his hand.'

For religious instruction, the mosques were endowed early with libraries, containing text-books and the usual works of reference. At the time of the journeyings of Ibn Djubair, towards the end of the twelfth century, the galleries of the Haram at Mecca had, built into them, cubicles rather like theatre boxes, for the convenience of copyists and teachers of the Koran.

Ibn Khaldun, so ill-informed about primary education in the east as to affirm that writing was not regularly taught there, is on firmer ground in his comments as regards the west. The inhabitants of the Maghreb, he declares, based their teaching solely on the study of the Koran, explaining to the children in the course of it the orthography of the text. In Spain the first subjects of instruction were reading and writing, but without a rigid restriction to these as such; the teachers would often introduce into the lessons passages of poetry or examples of letters. Their pupils were made to learn by heart the rules of Arab grammar, and to write carefully with clearly shaped letters.

Ibn A'rabi (c. 1148) set forth his ideas about the order of presentation of teaching material in a manifesto. He considered that the first study should be poetry, followed by calculation and the reading of the Koran, the study of which 'would be much easier as a result of the preliminary disciplines'.

Ibn Djubair in his *Journey* has some remarks about Damascus that are quite valuable: 'In teaching in all the countries of the East the young people have to do with the Koran only in learning to intone it. Other texts or poems are used for teaching them to write, lest the Book of God suffer from children's negligence in checking what they write or in effacing it. In most of these countries, the master who teaches intoning is not the one who teaches writing, a system conducing to fine handwriting, since the instructor has nothing else to be preoccupied with.' The Spanish traveller's observations are corroborated by the following *hadith*: Malik Ibn Anas, in reply to questioning about methods of teaching the Koran in the time of the first four caliphs, answered: 'The child copied what it had to learn on to a slate, and, having learnt it, wiped it off with a wet rag soaked in water which the pupils in turn set ready each morning in a pail, which was emptied each night in a hole.'

For what was known as secondary education, the real nature of which our information permits us to grasp only imperfectly, but which would seem to

correspond closely with what today we call higher education, we have a short programme drawn up by the Umayyad secretary, Abd el Hamid: 'Seek ardently an acquaintance with the literature of all the genres, and with learning in religious matters, beginning with the Book of God and the tenets of the Divine Law. Cultivate the Arabic language, so as to be able to express yourself correctly, and then work to develop a firm handwriting, the ornament with which your works should be enhanced. Learn by heart the Arab poems; make yourself conversant with the more difficult ideas and unusual expressions in them. Read the history of the Arabs and the Persians; lodge fast in your memory the accounts of their great deeds.'

To the *Fihrist* (Index) of Nadim, who was probably a bookseller, we owe a list of the works to be found in bookshops of the Baghdad markets—indeed the most magnificent picture of Arabic language culture that could have been presented since the advent of Islam. The utmost care was lavished on well bound, learned and scientific compilations. They were checked for accuracy of transcription from the dictation of those who knew them by heart, and standardization as to orthography.

Libraries and Centres of Learning

Ibn Khaldun gives a list of the great cultural centres of Islam in the eighth and ninth centuries: 'We may speak of the great prosperity enjoyed by Baghdad, Cordova, Qairawan, Bassorah, and Kufa. Different methods of teaching were adopted there; attention was directed to the solving of scientific problems and the pursuit of the cultivation of sciences in all their branches, and the ancients were at last surpassed.'

The importance of the Academy of Wisdom, which was established by the caliph Mamun, is noted below. It boasted both a rich library and an observatory, in which scholars of all races and creeds worked together. What was manifest here was the desire to preserve an intellectual heritage, not necessarily specifically Moslem, and Arabic only in its language. The monarch had assembled in his capital, from all quarters of the empire, the outstanding men of his time.

There is no evidence that Mamun's library was open to the public, but there was apparently in Baghdad at the same time a library to which all had access. It contained 14,000 volumes, including a hundred copies of the Koran made by Ibn Mukla: it was, alas, set on fire and sacked in 1059.

Little information is available about the libraries assembled in Egypt up to the middle of the tenth century. (Pl. 16a.) In the mosque of Amr, at Fostat, a certain number of copies of the Koran was preserved, but these are religious relics rather than masterpieces of calligraphy, with the exception of one book, which was valuable perhaps because it was different, or so it is claimed, from the revised version of Othman, and was the work of one of the first prefects of Egypt, Okba Djuhani.

About the library which the Fatimids had built in the royal palace, on the

other hand, we are better informed. This library was divided into two sections, one which we might nowadays call the palace library and the other the private library of the caliph. Permission could be obtained to work in the first, but the second was reserved strictly for the use of the caliph.

The palace library had forty rooms: it was the largest in all the Moslem empire and, in the eyes of contemporaries, one of the wonders of the world. The books were arranged in a great number of shelved cupboards divided by partitions, each cupboard having a door with lock and bolt. The works in the library numbered more than 100,000 volumes, most of them bound, a very few on separate sheets. 18,000 were works on antiquity; and there were also treatises on religious doctrine, according to various rites, chronicles, biographies of princes, and studies in astronomy, the cabbala and alchemy. A list affixed to the door of each cupboard indicated its contents.

There were up to 2,400 copies of the Koran, all of the greatest beauty, the work of the finest masters, embellished in gold and silver. Some of these were from the hand of Ibn Mukla and some by a calligrapher of equal renown, Ibn Bawwab. These were all ranged separately, in a room on the first floor. In other rooms there were copies of three particular works in very great number: 1,200, we are told, of the *Chronicle* of Tabari, five of them signed, one of which had cost a hundred dinars; more than 30, one of which was signed, of the first Arabic dictionary, the *Kitab al-Ain* of Khalil; and some 100 copies of an important work of lexicography, the *Djamhara* of Ibn Duraid. The library retained two copyists and in its coffers were preserved pens trimmed by Ibn Mukla, Ibn Bawwab and other famous calligraphers. This library prospered more or less up to the close of the Fatimid régime, but, as will be seen, the collections had several times to be renewed. The first inroad on them was made for the purpose of setting up another library, in the new educational institution opened on 24 March, 1005, by the caliph Hakim.

The Fatimids had secured intellectual autonomy for Cairo by the creation of a teaching institution at al-Azhar. This had its vicissitudes; but the foundation, by Hakim, of the House of Science, known also, as in Baghdad, as the House of Wisdom, enjoyed greater stability. Jurists were installed and books transferred from the palace libraries. Readers of the Koran, astronomers, grammarians, philologists, doctors, were also installed. Any individual might enter and read or copy what he wished. A great deal of thought was given to the embellishment of the building, which was furnished with carpets and hangings; men were engaged as curators and assistants. The library which Hakim had had assembled contained works on all subjects. There were books of science and belles-lettres, as well as calligraphic manuscripts. Together they formed the most valuable collection that any prince ever put at the disposal of the community, the works being available to all who wished to consult them, without distinction. With admirable generosity, the caliph paid suitable salaries to the jurists and other scholars of the establishment. The public liked to go there, to read, to copy, or to attend lectures given by the professors.

All the requisites of study were made available—ink, pens, paper, writing tables. Examinations were held for the first time with some solemnity, in 1012, in the presence of the caliph, who distributed diplomas to students of mathematics, logic, law and medicine. We know that 'instruction was given in the disciplines bequeathed by antiquity, that is to say, mathematics, astronomy, physical and natural sciences, geodesy, medicine, grammar, poetry, the arts, and the various branches of philosophy'.

The Fatimid libraries suffered two mortal blows. First came desecration in the disorders caused by famine in the reign of the caliph Munstansir. The precious volumes, unparalleled in the beauty of their calligraphy and the magnificence of their bindings, were abandoned to slaves, who made shoes for themselves out of the covers and burned all the pages, on the pretext that the works came from the caliph's library. Many volumes were torn in pieces, cast into the Nile, or carried off to other countries. A further consignment was auctioned off on the fall of the Fatimid dynasty. 100,000 volumes at least were preserved when they were taken over by a new college founded by one of Saladin's ministers.

The House of Wisdom itself was closed in 1122, following disorders provoked by heretics. A new university was indeed instituted in another part of Cairo, but the new establishment was closely controlled by the authorities. Two men who were known for their religious conformism were set over it, and teachers of reading the Koran installed. The instruction given appeared to be of a less secular character.

In the east, the disruption of the caliphate empire gave rise to a new surge of intellectual energy. Throughout the Samanid dominion, each mosque had its library. Typical examples were that at Nishapur, destroyed by the Turks who sacked the town in 1153, and that at Bukhara, extremely rich and containing rare works which were consulted by Avicenna. 'I saw there,' he declared, 'works of which many people have never heard, works I had never seen before, and have not seen since. It was destroyed in a fire. Merv, where works which had belonged to Yazdgard had for a while been kept, had, in the time of Yakut, ten libraries, one of them of 12,000 manuscripts.'

An account is given by Mukaddasi of the library of Adud al-Daula at Shiraz. 'It is a separate building within the palace, staffed by a curator, a stock-keeper, and a director. There is no work, even contemporary, in any field, of which this library has not its copy. It is a long vaulted gallery, with rooms opening off to the sides. All along the walls of gallery and alcoves are wooden cupboards, decorated in gilded patterns, as tall as a man, and three cubits wide, with down-sliding doors. The manuscripts are set on shelves. Each cupboard is allotted to a speciality, and catalogues give the titles of the works.'

A secretary of Adul al-Daula founded a library at Ram-Hormuz, in Fars, and another more important one is mentioned as being at Bessorah. The library founded in 993 in Baghdad by the Vizier Sabur contained more than

10,000 volumes, many of them signed. Most of them were spoilt by worms fifty years later; the library itself was burned when Toghrul-Beg entered Baghdad. The library of Ibn Abbad at Raiy was coveted angrily by the Ghaznavid sultan, Mahmūd, who carried it off with that of Ispahan, to Ghazni. Mongols burned the valuable library of Savah in 1220.

Mahmūd, as noted above, had ransacked the library of Raiy; he made a bonfire of works on astrology and philosophy, and of Shiite collections; the rest he carried off back with him to his capital, where they were destroyed in a fire which was set going by troops of a Gurid prince. The idea spread to the Abbadid caliphate, and the caliph Mustandjud ordered all the philosophical works in the libraries of *cadis* (notably those of Avicenna), to be burned.

The same splendour, and the same eventual series of disasters are to be seen in Moslem Spain. The Emir Abd al-Rahman II 'set no less store by knowledge, religious and secular, than by music and entertainment. He retained the taste he had shown before his accession for the study of Islamic traditions and ancient Arabic poetry; much work was done during his reign at his behest on the interpretation of the *hadiths*, following the Malekite method. His interest extended, too, to works on medicine, philosophy, the occult sciences, the art of prophecy, and the interpretation of dreams. While his father still lived, he had sent a mission to Iraq to bring back books on the disciplines that interested him most. These envoys brought in books on astronomy which had been hitherto unknown in Spain, and which began now, under the emir's benign influence, to be studied by intelligent circles in Cordova.'

No better guidance can be found in this field than that given in the works of Lévi-Provençal. In this circle, he says, there lived a typical scholar, Abbas ibn Firmas, a man of Berber origin, possessed of boundless imagination and inventive faculty. He could decipher the most incomprehensible hieroglyphics. When a merchant returned to Spain with Khalil's treatise on the Arab metrical system, nobody could make anything of these rules of prosody and scansion. Abbas had the manuscript brought to him, and betook himself with it to a corner of the palace, where he examined it and quickly grasping its meaning, proceeded to explain it to a dumbfounded audience.

The first two Umayyad caliphs of Cordova, Abd al-Rahman III and Hakim II, left a distinctive imprint on the literary, scientific and artistic development in the Iberian peninsula. The activities they personally engaged in are worth studying. They cover a period of more than sixty years, from 912 to 976, in the course of which the sovereignty of the two rulers developed unchecked.

'Abd al-Rahman's genius for organization and pomp earned Cordova the prestige of a brilliant court. Men of letters and artists made it their meeting-place, and fine edifices were erected there. Christians and converted Spaniards played a large part in this work, as in the conduct of business, and a fusion of the heterogeneous elements making up Moslem Spain appeared to take place. An Andalusian people was emerging.'

Abd al-Rahman displayed an uncommon breadth of understanding that enabled him to overbear the ideas—occasionally very narrow ones—of the dignitaries, scholars, and jurists who formed his entourage. This period of the flowering of liberal ideas thus coincides, as it had done 150 years earlier in Baghdad, with the liberal attitude adopted by the two caliphs, and accordingly by their followers, towards Christian and Jewish communities.

Under the son and successor of Abd al-Rahman, Hakim II, Cordova continued to be one of the foremost intellectual centres of the world. Hakim had brought from Baghdad, Egypt, and elsewhere in the east the rarest and most important works on learning, ancient and modern. His collection was almost as large as that which had taken the Abbasid princes much longer to assemble. Everywhere he had agents who were commissioned to copy or buy for him, at any price, ancient or modern books. His palace was filled with them; it was a workshop where one met none but copyists, binders, and illuminators. The catalogue of the library ran to forty-four volumes, without the inclusion of any description of the manuscripts other than the titles. Some authors have put the number of volumes at 400,000, every one of which Hakim had read, and most of which he had, moreover, annotated. Hakim excelled everybody in his knowledge of literary history; hence his notes have always been taken as authoritative by Andalusian scholars. Persian and Syrian works were often known to him almost before they had been read in the east.

‘The university of Cordova was at this time one of the most famous in the world. In the great Mosque, where instruction was given, Kali, from Baghdad, dictated a fine big volume, containing an immense amount of curious information about the ancient Arabs, their proverbs, language and poetry, a volume which he published much later under the title of *Dicta*. Grammar was taught by Ibn al-Kutiya, who, in the opinion of the aforementioned Kali, was the most knowledgeable grammarian in all Spain.’

The libraries were to suffer the same hard fate as their eastern counterparts. That of the caliphs, first purged by the fanatical zeal of Malekite jurists, failed to survive the fall of the caliphate in the ninth century, and was broken up. The dictator, Mansūriibn Abi Amir, had burned all works dealing with ancient science, except those concerned with medicine and arithmetic; all that survived were those concerned with lexicography, grammar, poetry, history, medicine, jurisprudence and tradition. The remainder were later sold at a contemptible price and found their way to other centres in the peninsula, who were almost falling over each other in their anxiety to capture the glory of the former metropolis. Later, in Seville, Ibn Hazm had the sad experience of being present at the burning of his own works.

Everywhere it was apparent that dictatorial powers, turning their back on a liberalism that had shown itself as a mettlesome movement, were about to assume control of thought and teaching. Well before the establishment of the *madrassa* (an account of which is given on page 457) in circles subject to the frustrating restrictions imposed by the Malekite jurists, a teacher is advised to

select for study the poems of Abu Nuwas, which were not likely to awaken ideas of independence, 'treating only of drinking and clowning'.

In Spain in the eleventh century, 'education, neither remunerated nor regulated by the State, was dispensed in small doses more or less everywhere. Hamlets and villages had their primary schools, large centres primary and secondary courses, and cities such as Seville, Cordova, Toledo, and Saragossa, all three categories: primary, secondary, and higher, not infrequently with a blurring of the demarcation between the last two, depending entirely on the particular professors concerned. The teachers, in theory unremunerated, were in fact almost always the recipients of stipends, usually small ones, in money or in kind, from governor or prince.'

From researches made by Pérès, it is clear that 'up to his twentieth year, the education of the Andalusian was a general one, and it was only on reaching this greater maturity that he specialized in one of the Moslem sciences, a Koran commentary, or the prophetic traditions.'

The Madrassa

It was partly as a measure against Shiite programmes of instruction that, on the initiative of the Seljuk dynasty of Persia, a state education system was evolved, the idea of which had not yet occurred to Moslem governments. Such are the origins of the *madrassa* the official school of theology, which was to become a political institution, in the words of one Arab author, 'a theologians' stronghold'.

The idea, however, was not entirely novel. Its inception may be traceable to the colleges of the Karriya monks, which were to be found from Palestine to central Asia. Berthold has suggested that the *madrassa* existing in the Balkh region from the tenth century may have been modelled on the Buddhist schools, the *vihara*, and were inaugurated to offset the influence of an effective Islamic propaganda technique.

There was now an end to religious and philosophic controversy and also to the cult of antiquity which had been fostered by the first Abbasids and the Fatimids. New curricula, based on the thought of Ghazali, and particularly of Ash'ari, were grounded firmly in Sunnite orthodoxy. The *madrassa*, which was thus born in Persia, radiated thence throughout the Islamic world, and colleges sprang up as if by magic. One of the founders of the first establishments could say after a journey to the Persian interior: 'I have not been in a single town, not a single hamlet, where there was not one of my pupils acting as judge, secretary, or preacher.' It was these colleges that formed the minds of those who later substantially contributed to the resistance to Crusader and Mongol alike. It may be justifiably claimed that, politically, the *madrassa* saved Islam.

Confronted with the disintegration of Islam, the specific danger coming from the sect of assassins, Nizam al-Mulk had very few alternatives to choose from. He acted in complete good faith; his biographers tell of his active

interest in the institutions he founded. He visited them to interrogate the pupils and took it upon himself to guide the most intelligent in their choice of a career. In the assemblies which he held daily, he tested the knowledge of those attending the courses with well-devised questions and placed the most capable in positions suited to their ability. Those whom he considered would make good teachers were immediately installed as such; he opened a new school, complete with library, especially for them.

He was primarily concerned, however, with teachers of the religious scriptures, for religion was the dominant idea of the Seljuk minister, the object of his respect and veneration. According to the terms of his political testament, the sovereign was bound to make enquiry into all that concerned religion, the obligations it imposed and its traditions. He must show respect to the doctors of law and make provision from the public funds for their subsistence. He must further show consideration to those who gave themselves up to the practices of devotion and honour to the virtuous. Funds at the beginning were ample to ensure the teachers' remuneration and at the same time furnish grants for students. Masters and pupils were in some cases lodged in the college; a library was attached to each college.

The *madrassa* as an institution was undoubtedly vitally necessary for ensuring the immediate future of Islam. It was none the less true that one result of it was a decline in the quality of education. The gulf was indeed wide between the expounders of doctrine in the early days of Islam, whose teaching was permeated by professional honour and the love of God, and these functionaries, these state employees who were greedy for diplomas which could entitle them to rank as professors.

The function of the *madrassa* was a double one; it served both as a large seminary, turning out religious personnel—*imams*, *cadis*, *muftis*—and as a training-ground for higher administrators. Thanks to this twofold nature of the institution, Islam became no longer simply a religion but also the strong political and moral support of a whole society. It was paradoxical that the foundation and proliferation of the *madrassas* should at the same time have entailed a decline in educational standards.

Following the extension of the *madrassa* system, however, religion began to exert an inimical influence on intellectual enquiry. 'There was nothing,' writes Father Abd al-Jahl, 'not even the establishment of a state-organized educational system, hitherto non-existent, which did not contribute to the general ossification. Creative intellectual endeavour was stifled by the creation of universities in Baghdad and elsewhere, which were intended to foster it.' A certain formalism in university thinking, even discounting the narrowness of ideas, was bound to induce decadence, if only by a display of useless erudition and respect for the commonplace. The outcome was the production of a stratum of the half-educated, who had, as it were, undergone a discipline of committing text-books to memory: it was inevitably the end of all independent thinking. There was a decadence which Biruni, contemplating the errors

committed under the dictatorship of Mahmūd of Ghazna, disconsolately foresaw. 'There can now be in our time no advance in knowledge, no new enquiry. We now have but the tattered remnants of knowledge that have come down to us from former times.'

What was taught corresponded roughly to the European universities' *trivium*—grammar, rhetoric and logic—together with very intensive religious instruction. The teaching of the *madrassa* ossified, and decadence descended on the east, for the same reason as in the west—abandonment of the classical culture; but it was at the moment when Europe, in part via Arab civilization, was making its rediscovery of just that same classical antiquity, that the eastern universities were plumbing the depths of their decline. Inflated rhetoric was supplanting feeling and a parish-pump parochialism was exchanging works of quality for manuals of recent local compilation.

Catechisms were placed at the disposal of teachers of religion; such books had no official status and were the work of private individuals, but certain of them had a steady following. These, statements in *akai'd* Arabic, are clear and precise expositions, intended to assist easy retention of the articles of the faith in the memory. One of the most popular of them was that written by Nasafi, who died in 1142.

It is possible that the college founded by the caliph Munstansir at Baghdad in 1227 may have been more liberal in intention. According to its last historian, this vast university comprised four sections for the four rites, a house for the teaching of the Koran, another for the teaching of the tradition, a library, a great hall for the teaching of mathematics and the laws of legacy, a building reserved for the teaching of medicine, pharmacy and the natural sciences, with a hospital, and a kitchen, a bathroom and a storeroom. 'The professor gives his lesson,' writes Ibn Battuta, 'from under a little wooden cupola, seated on a carpet-covered chair. He sits with an air of calm and gravity. He wears black clothes and a turban on his head. To right and left of him are two assistants, who repeat everything he dictates.'

The sack of Baghdad by the Mongol hordes marks the decline of the cultural civilization of the Moslem world, in the Arabic language at least. Decadence had certainly already begun, but the destruction of the libraries of the Abbasid capital was the irremediable disaster.

In the thirteenth and fourteenth centuries, the *madrassas* were to multiply in Aleppo, Damascus, Cairo (the Kalawun hospital and medical faculty there should not be forgotten) and Fez, to mention only the most important cities. They were splendid buildings, of stately architectural merit, but the institutions they housed were unworthy of them. It is a period in which intellectual life in no sense measures up to artistic achievement.

4. EUROPE AND BYZANTIUM

About the middle of the first century B.C., a system of education based on the seven liberal arts prevailed in the Hellenistic world. It included three literary

subjects—grammar, rhetoric and dialectic, and four scientific branches—geometry, arithmetic, astronomy and music (i.e. the theory of music). Rome took over this system, adding to it the study of law, but it accentuated an already perceptible bias against the sciences and stressed practical training designed to turn out good citizens and able magistrates. Though instruction was based on the study of pagan authors, Christianity did not attempt to substitute any other system, confining itself to introduce a parallel study of the Scriptures and of theology.

Education in the Byzantine Empire continued along these same general lines until the fifteenth century. But in western Europe the classical heritage was for the most part lost in the first centuries of the Middle Ages, the decline of the towns and the waning of the state bringing about the disappearance of the schools. The classical authors had then to be rediscovered, together with methods of teaching them. A history of education in medieval Europe must take account of this major fact that culture itself had to be reborn and that it took its first steps under the guidance of Antiquity. Its civilization was primarily the product of the schools or, as the word is now, 'scholastic'. The importance of this phenomenon, as well as its significance for the future, and the relatively richer documentation available, will induce us to lay a particular stress on this aspect.¹

A. Education in the Byzantine World

Though shaken by the Germanic and Slav invasions, and even more by the Arab conquest, the Byzantine Empire never knew the great 'culture vacuum' that marked western Romania. The cities, particularly Constantinople and Thessalonica, preserved an uninterrupted vitality which also found expression on the intellectual plane. There was always a public concerned with culture as indispensable to success in business or administration. Parents of only modest means made tremendous sacrifices so that their offspring might pursue their studies. This explains the great number of men who were able to make a career in teaching; not only the illustrious scholars were employed as tutors in the families of the aristocracy, but others of lesser pretensions gave instruction in private schools in the rudiments known as 'orthography', or *encycliōs paideusis*.

The Slavs. The situation in the Byzantine countryside was of course very different. Ignorance here would seem to have been widespread. By contrast, in the Slav countries, which were subjected early to Byzantine influence,² the urban phenomenon, as soon as it made its appearance, was accompanied by a fairly rapid extension of elementary education. The graffiti found on the walls of the St Sophia Cathedral in Novgorod, on messages written on the bark of birch trees, and on objects in everyday or professional use, are evidence that, in the Russia of the twelfth and thirteenth centuries, many artisans could at least already write.

Higher education. Higher education was provided by state establishments, which followed the Greco-Roman tradition; provincial schools supported by the municipalities, and the great imperial University of Byzantium. First founded by Constantine himself, it was enlarged in 425 by Theodosius II. Thirty-one professorships of grammar, rhetoric, philosophy and law were awarded on the results of an examination held before the Senate, and on completion of twenty years' service the professors became counts of the first class. In the early days, a few non-Christians were accepted among them; and teaching remained bilingual, at least in principle, until the seventh century (sixteen chairs were Greek at first, and fifteen Latin). With the decline of the Mouseias Akademia of Alexandria, the destruction of Beirut University, famous for its law faculty, by the earthquake of 551, and Justinian's closing of the neo-Platonist and pagan school in Athens in 529 (though Athens, as a centre of Byzantine letters, kept a high rank), the university at Constantinople became the one remaining public institution for the pursuit of higher learning in the Byzantine Empire.

Its destiny clearly depended in no small measure on the attitude adopted towards it by the emperors, the conscientiousness with which they looked to the recruiting and regular payment of teachers, and the incentives accorded to students. The disturbances of the iconoclastic dispute, and the almost exclusive attention of an emperor like Basil II to military affairs, were obviously hardly favourable to it. But the eclipse never reached the total stage, and the University was several times restored.

The revivals. After 830, Emperor Theophilus conferred upon it an outstanding principal in the person of Leo the Mathematician, who was still teaching there in 863 when Bardas endowed new chairs. Then in 1045 Emperor Constantine IX (Monomachus), seeking to build to himself a bulwark of scholarly support against the military aristocracy, undertook a complete reorganization of the university. It now consisted essentially of a school of law under the direction of a *nomophylax*, or 'guardian of the law', a Faculty of Philosophy, also with its chief, the 'consul of the philosophers', and a Faculty of Medicine, functioning at the Saint-Apostles church. John Xiphilinos and Psellos were the brilliant first occupants of these highly distinguished positions. Constantine IX was particularly concerned that instruction should be free and insisted on the seriousness of the students and the correct conduct of examinations.

We are in possession of some facts about the instruction given in this philosophy faculty. A first degree course comprised, under the heading of grammar, a fairly general instruction, based on the study of ancient Greek authors, particularly Homer. Psellos himself conducted, at a higher stage, a fairly encyclopaedic programme, embracing the seven liberal arts and, in addition, psychology and philosophy.

The *commeni* extended their protection to the university, while at the same time submitting it to ecclesiastical control, a measure they considered indis-

pensable in view of the flagrant heresy professed by some of its teachers. In the thirteenth century, when they were driven by the Crusaders from Constantinople, the Greek emperors, even amid so much anxiety and difficulty, never lost sight of the importance of education; nothing perhaps could give more convincing proof of the strength of this tradition of culture. Schools and libraries were set up in several towns of Asia Minor: Nicaea, in particular, had a school of philosophy, which was for a time directed by a remarkable scholar, Nicephorous Blemmides; and the recovery of Constantinople was followed, after a brief interval, by the triumphant renaissance of the old university.

Church schools. It has been established that neither the study of the Scriptures nor theology figured in its programme. These were taught by the Church in its own schools. The monastic schools had been closed by the Council of Chalcedon (451) to all children save those destined by their parents to be monks. Such a prohibition was doubtless often circumvented, but such schools confined the imparting of general instruction to a minimum, and their teaching remained almost exclusively religious. The monastic disregard for secular culture was more than once made publicly manifest, whereas, it is true to say, in some monasteries, the copying of manuscripts was diligently carried on. In the ninth century, a reform of the script originated in the Stoudiosum Monastery, at Constantinople; it brought about the current use of the cursive minuscule. The episcopal schools, on the other hand, gave considerable time to the liberal arts. The most outstanding, from the ninth century at least, was the Patriarchal School in Constantinople. The teachers were deacons of St Sophia, and its principal bore the title of 'ecumenical professor'. Very many students went there, who were also attending the imperial university. Around 1200, they used to forgather, with the patriarch presiding, in the outbuildings of the church of the Holy Apostles, there to discuss the subjects of their curriculum 'like sparrows round a spring'. This is one more manifestation for us of the fervour with which, all consideration of career and livelihood apart, disinterested learning was pursued.

B. Education in Latin Christendom: an historical sketch

Culturally speaking, the heritage that medieval Europe received from Rome (via such second-rate compilers as Pliny the Younger, or later, Chalcidius, the partial translator of Plato's *Timaeus*, or Macrobius, or Martianus Capella) was already markedly diminished. The general decline of culture and the now almost chronic misreading of Greek, seemed likely to render the situation irremediable. The efforts of Boëthius and Cassiodorus to revive western culture by a return to the Greek sources failed, as we have seen, to bear fruit. The main task was to reassemble in encyclopedias what survived of the culture of antiquity: here the example set by St Isidore of Seville with his *Etymologies* was followed in more than one instance between the sixth and twelfth centuries.

The schools, however, had disappeared; and the monks, who in the cultivated society of Byzantium were looked upon as enemies of the secular culture, found themselves faced by an ignorance which prevailed almost everywhere in western Europe, and they became the reluctant keepers of that same culture. St Augustine had already drawn up a programme for a Christian education based on a good general cultural grounding. Cassiodorus, in his monastery at Vivarium, had set a practical example. The monastery of Monte Cassino, however, founded in 529 by St Benedict of Nursia, exerted a cultural influence of more lasting significance. From Monte Cassino went out the idea of a monastic discipline designed by St Benedict, which took full account of the needs of the period, and included the transcribing and study of manuscripts. (Pl. 16b.) Unfortunately, we can draw up no geographical or chronological chart of these monastic foundations, a few isolated cells in an unlettered world. The great cultural problems for the early Middle Ages were those of communication between these cells.

There is no clearer illustration of this than the birth of classical culture in England. The initial impetus was given by the teaching of the Greek Theodore of Tarsus, designated archbishop of Canterbury in 669, and the collection by one of his companions, Benedict Biscop, in the monasteries of Wearmouth and Jarrow, of numerous books brought or copied by his orders in Rome and Vienna. So it was that the Venerable Bede (*c.* 673–735), one of the most powerful minds of that thinly endowed period, could, without leaving his monastery in Jarrow, find to hand the material he needed for the composition of works of an extremely varied nature. And his influence persisted through the agency of the episcopal school at York.

The foregoing shows clearly how inadequate is any mere compilation of lists of works theoretically available in western Europe at this time without inquiry as to how widely a knowledge of them was in fact diffused. This is an exacting quest, often an impossible one. Such an inquiry would doubtless reveal the prevailing mediocrity of the copies, which were made by monks of scant education whose mistakes made whole passages unintelligible; and the oblivion which was the lot of some of the works that should have been available, such as the treatises of Boethius is a clear demonstration of the situation which the Carolingian Renaissance was an attempt to remedy.

The Carolingian Renaissance. The origins of this movement, again, must be sought in the schools. In an endeavour to raise moral and intellectual standards among the clergy, and, through them, those of the people at large, Charlemagne ordained the opening of schools in association with every bishopric and monastery, to provide basic education. The moving spirit in this venture was Alcuin, who had himself been educated at York. His syllabus for the schools was based on the cycle of the seven liberal arts, with a clear demarcation between the *trivium* (the literary subjects) and the *quadrivium* (the four scientific branches). But if these arts were to be taught in many schools, the

schools must first have libraries with the principal classical authors and basic manuals on their shelves; hence there followed an intensive copying drive, which led to a reform of handwriting.

The results of these efforts were striking. One was the inauguration of a handwriting, the Caroline minuscule, which persisted as current everyday usage into our own time. There followed a purification of written Latin, as a result of which its separation from the spoken tongue became decisive. With the proliferation and improved quality of the copies there was a more general access to the ancient heritage; and the ninth century saw the beginning of that admirable line of manuscripts to which we ourselves owe our acquaintance with so many Latin masterpieces. Ptolemy's geography and the *Categories* of Aristotle made their appearance in the work of Johannes Scotus Erigena. Thus began the sudden emergence, both in quantity and in quality, of a literary creativeness that was gradually to find its own originality.

The exact localization of these results, any precise mapping so to speak, of the Carolingian Renaissance, presents more difficulties. It is established that the ambitions of Charlemagne were never realized in their totality; not every diocese, nor every monastery, had its school. The texts do, however, cite certain schools with respect, and the efforts of scholars have enabled us to single out the principal *scriptoria*, or copying centres. The region between the Loire and the Rhine, where monasticism had in the preceding centuries sunk its roots particularly deep, would seem to have been the most productive. But the penetration of culture into Germany, with the development of abbeys like Fulda and Corvey, and thanks to men like Hrabanus Maurus, was also of tremendous significance.

Then, in the ninth and tenth centuries, came the severe test of further invasions. Many of these little intellectual centres disappeared. The monastery of Monte Cassino, for example, fell into ruins when the monks had for a time to abandon it. Elsewhere, monastic buildings and the libraries which they housed disappeared in flames. But the destruction was not complete. In most instances, the invaders departed and the monks returned to their task.

The tenth century was also the century of Cluny, although the emphasis in the Cluniac discipline was, it is true, less on the labour of the intellect, properly speaking, than on the grandeur of the liturgy. At least, the work of copying was resumed. As a whole, in the ninth and tenth centuries, the light burns brightest in the monastic schools, even more than in the episcopal schools; the former were responsible in Germany for the flowering anew of the Carolingian Renaissance in what has been called the 'Ottonian renaissance'. But some episcopal schools were also extremely active; the school of Liège, for instance, took inspiration, from the middle of the tenth century onwards, from an outstanding line of bishops, including Ratherius and, most notably, Notker. Most of these schools were open schools, that is, their classes were not restricted to those destined for monastic life or a clerical career in the diocese. The instruction they imparted was indeed of a rudimentary nature: writing,

grammar, some idea of calendar computation and expository reading of the Scriptures. But the intellectual ardour awakened there sufficed to inaugurate the rediscovery of the ancient heritage.

Of this movement of rediscovery, and its development in Spain and Italy, the countries where Moslem and Christian met, the lines have already been traced. Let it be emphasized again that it was primarily the work of the Europeans themselves. Indeed, the influx into Spain of translators from Italy, Germany, England and elsewhere, there to seize on the wondrous secrets of the world of thought, is an impressive sight. The eagerness and faith in human reason thus displayed found fitting expression in the words of Adelard of Bath: 'If reason be not the universal arbiter, it is given to each of us in vain.'

Translators and transcribers. Translator and transcriber are thus the twin pillars of European culture. The circumstances in which they worked, it should be recognized, were not of the best. The tools at their disposal were few indeed: a few Arab dictionaries, but no Greek ones, and no Greek grammar either. The translators' knowledge was empirically acquired; in the absence of a sound framework their performances were variable in the extreme. Some translations are riddled with errors and incomprehensible passages, for they aimed at a literal rendering where every word in the one language has its counterpart in the other. Many words, having no Latin equivalent, have been transcribed as they stood: hence the influx of Arabic scientific terms into European languages (alkali, alembic, camphor, elixir, zenith, zero, etc.). But the distortion of proper names (Avicenna for Ibn Sina, Averroes for Ibn Rushd etc.) is disquieting. Attempts were made to improve these translations. In the thirteenth century, the Flemish Dominican, William of Moerbeke, with several periods of residence in Greece behind him, and at the request of his friend Thomas Aquinas, translated directly from the Greek some of the treatise of Aristotle, and a work of Archimedes which has come down to us through his intermediary alone.

The number of copies of these translations that have been recovered is an indication for us today of how far Europe has been penetrated by these classical and Arabic writings. The medieval copyists were conscious of the service they were rendering to civilization. 'For every letter, line, and point, a sin is forgiven me'—so reads a marginal note on an eleventh century Arras manuscript. The few figures we possess emphasize the length of their task: in 1004, for instance, a copyist at Luxeuil spent eleven days on the *Geometry* of the pseudo-Boëthius, a passage which in modern type would occupy some fifty-five pages.

The triumph of the minuscule hand. The minuscule hand that emerged from the Carolingian reform provided the scribes with a medium that was clear and practical. In fact, Charlemagne provided conditions favourable to the dissemination of the handwriting which, since the eighth century, had been gradually clarified and standardized in different *scriptoria* between the Loire

**CHART 2. SOME TRANSLATIONS OF THE MAIN SCIENTIFIC SOURCES
IN WESTERN CHRISTENDOM BETWEEN A.D. 500 AND 1300**

(compiled from A. C. Crombie, *Augustine to Galileo*, pp. 23-30, Falcon, London, 1952)

CHART 2

<i>Author</i>	<i>Work</i>	<i>Latin Translator (language of original)</i>	<i>Date and Place of Latin Translation</i>
Plato	<i>Timaeus</i> (part)	Chalcidius (Greek)	4th century
Aristotle	<i>Logica vetus</i>	Boëthius (Greek)	6th century, Italy
Dioscorides	<i>Materia Medica</i>	? (Greek)	by 6th century
Al Khwarizmi	<i>Liber . . . Alchorismi</i> Astronomical Tables	Adelard of Bath (Arabic)	c. 1126
Euclid	<i>Elements</i>	do	
Al Khwarizmi	<i>Algebra</i>	Robert of Chester (Arabic)	Segovia, 1145
Al Kindi	<i>De Aspectibus; de Umbris et de diversitate Aspectuum</i>	Gerard of Cremona [and others] (Arabic)	Toledo, 12th century
Rhazes	<i>Liber Almansoris</i> (medical compilation)	do	
pseudo- Aristotle	<i>De proprietatibus Elementorum</i> (Arabic work on Geology)	do	
Avicenna	<i>Canon</i> (medical encyclopaedia)	do	
Hippocrates and School	Various treatises	do	
Aristotle	<i>Meteorologica, Physica, De caelo et mundo, De generatione et corruptione</i>	do	
Archimedes	<i>De mensura circuli</i>	do	
Galen	Various medical treatises	do	
Ptolemy	<i>Almagest</i>	do	
Avicenna	<i>Kitab al-shifa</i> (physical and philosophical part: com- mentary of Aristotle)	Dominicus Gundissalinus and John of Seville (Arabic)	Toledo, 12th century
Aristotle	Posterior Analytics (part of <i>Logica Nova</i>)	? (Arabic)	Toledo, 12th century
Aristotle	do	? (Greek)	12th century
Aristotle	<i>Physica, De generatione et corruptione, Parva Naturalia</i>	? (Greek)	12th century
Ptolemy	<i>Almagest</i>	? (Greek)	c. 1160, Sicily
Hippocrates and School	Aphorisms	Burgundio of Pisa (Greek)	12th century
Averroës	Commentaries on Aristotle	Michael Scot (Arabic)	early 13th century
Aristotle	<i>De animalibus</i>	do	Spain, c. 1217- 20
Euclid	<i>Elements</i>	Campanus of Novara (revision)	c. 1254
Hippocrates and School	Various treatises	William of Moerbeke (Greek)	after 1260
Aristotle	Almost complete works	do	c. 1260-71
Galen	Various medical treatises	do	1277
Rhazes	<i>Liber continens</i> (medical compilation)	Moses Farachi (Arabic)	Sicily, 1279

and the Rhine. It had issued from the common Roman hand, regularized and stripped of its ligatures. In the period from the ninth to the twelfth centuries, the area of its predominance was greatly extended, as a result of monastic reforms and, especially of Cluniac expansion. It spread to England; to Spain, where in the twelfth century it finally triumphed over the 'Visigothic hand'; and to Italy, where it and the traditional Curial hand were employed in Rome concurrently until the Carolingian form was generalized under the French Cluniac, Pope Urban II. The remarkable uniformity of this hand, in such general use in Europe, is in marked contrast to the political disunity. In the twelfth and thirteenth centuries, educational development and the increasing part played by the written word in social life made it necessary to write more and faster. Letters were increasingly run together, curves were broken and abbreviations multiplied. With this 'mass production' came a decline in writing, which continued until the advent of printing. But the characters of the printing press reproduced, and have continued to reproduce with only slight variations up to the present day, those of the Caroline minuscule.

The inevitable lapses of attention and occasional misunderstandings resulted in discrepancies as between one copy and another; scholars have devoted themselves to the elucidation of these ever since the Middle Ages, but more systematically since the sixteenth century. It should also be remembered in this connection that books were expensive, the individual could rarely possess his own library, the function of which often devolved on memory.

The reception of Greco-Arabic science. The chart above shows what works were thus made available, and at what date. Note should be taken of the progressively increasing dissemination of the ideas of Aristotle. The *Ancient Logic*, acquaintance with which dated from Boëthius, was joined, early in the twelfth century, by the *New Logic*. A double current of translations, from Sicily and Spain, in the last decades of the twelfth century, contributed the greater part of the *Physics* and *Metaphysics*. The revelation by Michael Scot of the great Arab peripatetics, Ibn Rushd (Averroes) and Al Bitrūjī, and Moerbeke's revision of the greater part of the Aristotelian treatises about the middle of the thirteenth century, constituted a third 'peak period' of Aristotelianism. Plato did not meet with the same reception; the *Phaedo* and the *Meno*, translated in the latter half of the twelfth century, attracted only little attention.

Never in history, certainly, has so great an accumulation of learning been uncovered at such chronological distance in so short a time. It was around this tremendous revelation that there grew up, in the twelfth and thirteenth centuries, a system of education in Europe.

Urban growth and episcopal schools. From the early twelfth century, a twofold social development, material and intellectual, was reflected in the take-over by the episcopal schools of the function of the monastic schools. The growth of the towns provided the episcopal schools with excellent opportunities for

expansion and the secular urban clergy became the most cultivated section of the Church. The enrichment of the cultural heritage to be imparted imposed a heavier burden on the teacher, which could be shouldered only at the cost of disrupting the monastic discipline. Thus the lustre of the monastic schools was in most cases somewhat dimmed and they abandoned the instruction of pupils other than those intended for the priesthood. The new monastic ideal of the twelfth century was that of St Bernard and of the Cistercians, the highest value being set on seclusion and manual labour.

The obverse of this decline was the rising of the episcopal schools. They were at first lacking in stability; at a brilliant peak for a short period under the influence of a brilliant master, their standard would drop with his departure. They tended to specialize temporarily in the studies most favoured by such a man and sacrificed the continuity of an established curriculum. Tournai, for instance, under the school divine Odon (1087–92), and Laon under Anselm (died 1117) had their brief moments of splendour. In the course of the twelfth century, however, certain developments of a more lasting character became apparent. Bologna emerged as the greatest school of law (both civil and canon); Salerno had already been established as the principal centre of medical instruction. About 1140, Orleans emerged as the great centre of grammar, rhetoric and poetic humanism. The first half of the twelfth century was also the period of the ascendancy of Chartres, citadel of the *quadrivium*, of mathematics and of neo-Platonism. It numbered among its chancellors Bernard and Thierry de Chartres, and among their pupils William de Conches, John of Salisbury, and the theologian, Gilbert de la Porrée. The century opened on a Paris basking in the light shed by Abelard with his exposition of the new Aristotelian logic, the dialectic. This seminal teaching was, however, imparted outside the episcopal school and in opposition to it. Abelard moved to the Montagne Ste-Geneviève, then to Melun, and his disciples followed. He was denounced several times after 1121 and finally withdrew to a monastery. But the dialectic carried the day in Paris and the city's glory was, in the latter half of the century, to outshine that of Chartres.

New problems. There is a gradual change in emphasis as the century progresses. 'In 1100, the school followed the teacher; by 1200, the teacher followed the school.' (Haskins) By then, the movement had concentrated in certain towns with a consequent gain in amplitude and stability. The progress, however, brought its attendant difficulties. The influx of teachers and students to these urban centres raised problems of lodging, feeding and discipline. The framework of the old episcopal schools was inadequate to deal with such numbers. Official recognition had to be accorded, moreover, to the new branches of learning, which had to be brought within a programme of study to be pursued by students in a regular manner. Lastly, this forgoing of masters in a few centres, while it had some brilliant results, led also to an impoverishment of the rest of Christendom. The papacy's reservation of certain benefices in each

diocese for masters of grammar and theology was a vain attempt to halt this decline. These problems persisted until the thirteenth century, when the universities and mendicant orders made their appearance.

The university takes shape. The 'University of Masters and Students' was, strictly speaking, a corporate organization formed for the defence of their interests both against the bishops who strove to retain their directive power over the expanding schools and the civil authorities who repressed student agitation. Such was the case in Paris, where Philip Augustus recognized the right of the Church to try students (1200), and Pope Innocent III, himself a former Paris student, granted the university considerable autonomy in its relations with the bishop and the right to draw up its own statutes (1212-5). A rather different situation prevailed in Bologna, where the teachers were employees of the corporate body—a 'university of students'.

A university in fact required for its constitution the existence of a *studium generale*, that is, a centre with an assemblage of students of widespread origin, where the ministrations of a number of teachers provided a more or less comprehensive instruction. Its existence had also to receive the blessing of the pope who decreed general recognition for its degrees, which constituted it a true 'institution of Christendom'. At first, the papacy confined itself to conferring formal recognition on schools that had arisen spontaneously, as at Paris, Bologna, Montpellier and Coimbra. A strike that led to the suspension of lectures in Paris between 1229 and 1231 was of marked advantage to Oxford, which had been in process of formation as a university since 1208, and Orleans, where the schools were able to obtain consecration as a university. Cambridge and Padua came into being as a result of student secessions. And on the model of these universities of spontaneous origin (*ex consuetudine*), yet others were created (*ex privilegio*), for instance at Palencia (1212) and Toulouse (1229) as part of the struggle against heresy.

Faculties and nations. The organization of studies was by faculties; a Faculty of Arts, in which were grouped the greater part of the students still at the initial stage of their university career; and Faculties of Theology, Canon Law, Civil Law and Medicine, not all of which were to be found at all universities. The programme in each comprised a course of lectures, ordinary and extraordinary, and disputations. These had to be regularly pursued for a stipulated number of years. And examinations ratified the studies. Students were grouped within the Faculty of Arts by 'Nations', under the direction of their chosen proctors or rectors. Here, the students had no serious grudge against local or central authorities, but wanted to make sure that the teachers would cover the entire subject-matter they were expected to teach. This was all the more essential as books were expensive and lecture notes were the main reference work available to every student.

Problems of practical living were gradually (but imperfectly) solved with the introduction of colleges, in which life was carefully ordered. The first was

the College of Eighteen, associated in 1180 with the Hôtel-Dieu de Paris; in 1257, Robert de Sorbon, chaplain to Louis IX, founded a college for sixteen theologians which was to perpetuate his name—the Sorbonne.

The mendicant orders. The mendicant orders, both within the universities and outside them, were of considerable importance. The Order of the Friars Preachers, founded by St Dominic to fight against heresy, counted learning from the first as its principal concern. It quickly established a footing in Paris and Bologna, recruiting there what might well be called a 'university clergy', the membership of which numbered some 1,500 by the end of the thirteenth century. At the same time, it founded convent schools in every diocese, effecting a much needed decentralization of education. The Friars Minor, by a more gradual process and in face of the opposition of St Francis, also assumed an intellectual character. Integration of these orders with the universities was not effected without conflict. The popularity of the friars with the students, and the increasing number of chairs occupied by them, called forth a strenuous resistance from the secular professors, who retired worsted only after a series of strikes, excommunications, and papal interventions in favour of the friars (1252–6).

Other schools. There were, of course, other educational establishments in the towns besides the universities. Mention should be made here of the small urban schools, which provided elementary instruction for bourgeois and merchant, the control of which was disputed by municipality and Church. The teachers in them were often laymen. They flourished particularly in Italy, but were found all over Europe. In early twelfth century France, Guibert, abbot of Nogent, noted that teachers of grammar were both more numerous and better than in his youth. Ypres, in the middle of the thirteenth century, boasted, in addition to a network of elementary schools spread over the various districts, three 'high schools'. In Florence, a little later, the chronicler Villani speaks of 8–10,000 boys and girls learning to read at school. This means that virtually every child of school age attended school. The movement extended eastwards; in 1253 a municipal school was founded at Lübeck.

C. Education in Latin Christendom: content and results

We have little information about the instruction given in these elementary schools. Reading, writing, calculation, a few rudiments of Latin grammar, basic religious teaching—they did not necessarily limit their programme to these. But we may dismiss as only theoretical the curriculum elaborated about 1300 by a certain Pierre Dubois, which reads like an account of a modern 'secondary education'. More than one university student had first to be taught to write.

Curricula. The basis of university teaching was the cycle of the liberal arts, gradually augmented. The literary arts of the *trivium* were the first to be

amplified. In the twelfth century, dialectics held a prominent position, whilst the study of the *quadrivium* sciences received an initial impetus at Chartres, to which Oxford was to supply momentum. But all these subjects, together with philosophy, were subordinated to the divine sciences. The idea of a balanced, comprehensive culture finds explicit expression in one or two characteristic works of the twelfth century: the *Didascalion* of Hugh of St Victor (of Paris), a serious treatise on education; and the *Metalogicon* of John of Salisbury, who was imbued with memories of a Chartres education.

Grammar. In the Faculty of Arts, then, each student, before embarking on more specialized study, acquired a general cultural grounding. In Latin grammar the basic manuals were those of Donatus and Priscian, whose eighteen books of *Institutiones* provided a clear exposition, illustrated with good quotations. Grammar was also given practical application, so to speak, by the study of various authors, usually as they were represented in the 'Florilegia'; Virgil, Ovid (whose *Ars Amatoria* was found even in Cluny!) and the undistinguished Statius were doubtless the three most read. Such live, literary teaching of grammar, the basis of a true humanism, was largely superseded in the thirteenth century by the use of versified grammars, like the *Doctrinale* of Alexander of Villedieu, which was narrowly utilitarian, or given to dialectical discussion from which no true philosophy of language was ever evolved.

Rhetoric. Rhetoric had a rather similar history. The introduction to it in the twelfth century was by way of a study of the great orators, Cicero in particular, but also Seneca and Quintilian. But in feudal times, the art of discourse lacked the opportunities for application it had enjoyed in republican Rome (*oratio* no longer signified discourse, but prayer!). It was envisaged primarily as an art of writing; rhetoric ended up as the *ars dictaminis*. In the third quarter of the eleventh century, the manuals of formulas for the assistance of lawyers in drawing up their deeds were superseded by the *Breviarum de Dictamine*, in which Alberic of Monte Cassino laid down rules and conventions for the drafting of letters, with models appended. With his example before them, Bologna and Orleans specialized in this new and somewhat mechanical study —by which the student acquired, *inter alia* the art of dividing a letter into five sections: salutation, exordium (designed to induce goodwill in the reader), exposition, petition and conclusion. As with grammar, utilitarian considerations had outweighed all those of literary value.

Dialectics. To such a progressive narrowing down, however, the story of dialectics presents a notable contrast. This came into its own with the increasing diffusion of Aristotelian works. Aristotle had seen in dialectics the logic of the probable, as opposed to science, the concern of which was the necessary. Its function was the analysis of concepts, their breaking down into constituent parts and, conversely, the recognition of a single reality from

diverse formulations. It examined the laws governing relations between given propositions or syllogisms—their dependence on, implication of, or exclusion of, each other. It was thus a critical instrument applicable to all disciplines, a guiding line running through all intellectual activity, in which Paris, from the days of the teaching of Abelard, accorded it full recognition.

The trivium and the quadrivium. Originally, the literary training of the *trivium* was regarded as the basic or elementary (trivial, we still say) preparation for the scientific training of the *quadrivium*; this in turn would lead to the advanced, and specialized, training in theology, or civil and canon law, or medicine. In Paris, however, the *quadrivium* tended to wither away, under the overwhelming influence of theology. It was not so in a large proportion of the universities where law and medicine held their ground, such as Bologna and Oxford. Here, the *quadrivium* continued to grow. At Oxford, for instance, the manuals prescribed for obligatory study included the *Arithmetic* of Boëthius, the *Elements* of Euclid, Ptolemy's *Almagest*, Alhazen's *Optics* and numerous treatises by Aristotle.

Methods of teaching. The development of the actual methods of teaching reflects the gradual growth of a more independent attitude on the part of the world of learning towards the classical inheritance that had served as its foundation.

All instruction was primarily a 'lecture' and every teacher a 'lecturer'. Perusal of the text was constantly interrupted in order that the teacher might offer a threefold explication: a grammatical commentary (*littera*), an exposition of *prima facie* content as first apprehended in the light of this commentary (*sensus*), and finally an analysis of deeper meaning (*sententia*). Such was the procedure in the case of the Scriptures, from which it was customary to derive a symbolic meaning, an item of moral and doctrinal import and to emphasize the points of correspondences between the Old Testament and the New. Similar procedure was followed with the *auctores*, orators and poets, who were accepted as authorities in matters of grammar and rhetoric; the method permitting such interpretation of profane writers (Virgil, for example, whose *Aeneid* was treated as the story of the human soul) as might reconcile them with the demands of the Faith. The teacher was expected also to give a 'division' of the text, that is, an analysis of its grammatical and logical structure.

He would then turn back to examine his students' grasp of the text in the aspects he had indicated. Mnemotechnical procedures (summaries by question and answer, synoptic tables and easily memorized verses) were used to lighten the heavy burden of memory work incurred through lack of books. Such is the picture we have of education at Chartres, from the description of John of Salisbury.

The teaching of theology. The teaching of theology is an interesting example of

how these methods developed. The text of the Scriptures had been passed on with a whole accumulation of glosses, that is, interlinear or marginal notes, appended in some cases by Fathers of the Church, and intended to help resolve difficulties of interpretation. Continually supplemented (in the ninth century, for instance, and again in the eleventh), these glosses were finally reconstituted as an independent text (*glossa major*), which incorporated the quotations to be analysed. But their interpretations were often at variance, and discrepancies had to be explained. The commentary suffered also from the repetitions and regressions necessitated by the scriptural text it followed. Increasingly, it tended to take on a shape of its own, dictated by its own line of reasoning and doctrinal coherence. In the twelfth century, the *quaestio* (i.e. the question of doctrine raised by the text) began to be studied separately from the 'lecture'. Collections of excerpts from the Fathers appeared, and 'sentences' were grouped under headings according to doctrinal import; then came 'compendia of sentences', in which the 'disputed questions' were given doctrinal coherence.

A few names may be associated with stages in this evolution. St Anselm of Bec (died 1109) first broke away from the scriptural order, though he brought his new method to bear only in a few monographs. Abelard, far from disguising the contradictions between the various patristic commentaries, placed deliberate emphasis on them (as in his book *Sic et Non*, i.e. Yes and No) and taught the dialectical method as a means of selecting between the probable opinions.³ Towards 1150, Peter Lombard brought out his *Libri Quatuor Sententiarum*, which were to exert a considerable influence for over a century. His excursion into the art of disputation was a modest one, conducted with complete effacement of the personality of the 'relator', but in the thirteenth century this art became something to be cultivated for its own sake. It reached its apogee with the 'quodlibetic questions', in which the teacher conducted with his students what was expressly termed a *disputatio*, on a subject stipulated by their audience. Having served as a means of building up a theology, dialectics had now become an end in itself. Methodological progress, however, continued in the schools of law and medicine, where the *trivium* was not so much a dead end as an alley leading to the *quadrivium*.

Of this development through the centuries, the career of the individual student was the image in miniature. With his various examinations in view—the degree of bachelor and the *licentia docendi*, followed eventually by those of his chosen specialization—he first of all followed the course of *lectura*. Having acquired the status of bachelor of arts, he was initiated to the *disputatio*, by which time he was considered able to conduct his own expository 'literal lectures'. His labours culminated in the presentation of a thesis, which had to be sustained before an examining body of several masters. After taking certain solemn oaths and delivering an inaugural lecture, he became a master.

The spread of literacy. The results of this system have their quantitative and

qualitative aspect. The university world, in the thirteenth century, was confined to a small minority, even among ecclesiastics. Towards the end of the century the University of Paris, 'eternal stronghold of light', may have comprised numerically some 1,500 masters and students. The estimation of how widely education, at least of an elementary nature, had permeated through the rest of society, is more difficult.

One criterion is the part played by the written word in the life of the community. This had shown a marked diminution up to the Carolingian period, when Charlemagne made it his business to extend the administrative use of the written document. But any advances made were swept away before further invasions. Nevertheless, in the tenth century the written document still retained its value in legal matters in many areas; churches and monasteries continued to draw up deeds of gifts, purchase, and sale. With the exception of Italy and parts of Spain, where unbroken series of documents are still today proof of the contrary, there was a decline in the eleventh century; legal proceedings were then conducted primarily by means of declarations by witnesses and oaths by co-jurors, and by ordeal. Contracts were for the most part sealed at oral ceremonies, accompanied by such symbolic gestures as might better engrave them on the memory. There was the rite of homage, for instance, and investitures took the form of handing over a branch, or a clod of earth. The most that would be committed to paper would be an ecclesiastical institution's account of such a ceremony, with the precious names of the witnesses subjoined—a 'notice', a record and no more. Towards the close of the century, however, we find the first documents of seignorial administration, surveys of rents (*terriers*) and records of rights (*customals*). In the second half of the twelfth century the charter, a document of legal validity, replaced the 'notice'.

The written word comes into its own. In the thirteenth century, the written word came rapidly into its own. This was the period when ecclesiastic, monarchic, and even domanial chancelleries were set up. The procedure for these institutions took shape at about the same period, in Italy under Innocent III, in France under Philip Augustus, in England under King John. Numerous oral precedents were now committed to standardized written forms; notarial practice, evolved in Italy in the eleventh century and spreading through southern France and Spain from the middle of the twelfth, afforded private individuals the opportunity, of which they were not slow to take advantage, of ensuring legal validity for their smallest transactions.

Even so, most of the population of Europe was probably still illiterate, a fact of undeniable, if not exactly calculable, consequence. That there was evident need to develop the iconography of the churches—'encyclopaedias in stone'—has been rightly stressed in this connection. But the transmission of oral traditions, particularly those of a literary nature, and of a whole folklore, among these unlettered masses, raise questions that cannot be entered into here. The growth of literacy and education among townspeople, in contrast to

the slower progress among other classes, will be briefly mentioned later.

Latin, the literary language. The language of the literary texts and legal documents provides further evidence by which to assess culture. The Carolingian Renaissance that followed the decline of the early medieval period was expressed in a return to the rules of classical grammar; written Latin thus parted company with the spoken word. But in the tenth and eleventh centuries, except in a few of the monastic schools, the written language reverted to a state of barbarism. Such scribes of the eleventh century as were possessed of some measure of culture took a pride in it, which was expressed by a deliberate and misplaced seeking after unusual terms and periphrases which they considered elegant. The twelfth century saw both a return to classical Latin proper (the triumph of restraint) and the extension of these virtues to more scribes over a wider area. The achievement of the thirteenth century was not so qualified. In the great chancelleries, Latin attained unrivalled heights of correctness and precision; elsewhere it only too frequently degenerated into a more or less clumsy translation of ideas originally conceived in one of the vulgar tongues, the use of which was gaining rapid ground.

The literacy of the laity. This last is a phenomenon of great importance of which account must be taken in any attempt to assess the level of education of the laity. Up to the twelfth century, all culture was Latin and a knowledge of Latin was the educational yard-stick. As from the thirteenth century, this was no longer the case; the fact is brought forward by the enquiries conducted into the education of sovereigns and the aristocracy, almost the only class, with the exception of the clergy, about which the sources are at all informative. A few very general inferences may be drawn. In the sixth and seventh centuries, nobles of barbarian origin were rarely the equal of the indigenous aristocracy, proud of its ancient cultural tradition. Pirenne undoubtedly exaggerated, in the interests of his theory, the ignorance of the laity in the Carolingian period. It was in the tenth century that this became really general, so much so as to be shared by most of the kings. Signs of a revival began to appear in the eleventh century; in this Italy seems to have been somewhat in advance. But, even in that feudal world which professed contempt for culture, nearly every European country yet contrived to bring forth one or two outstanding learned men or women, such as William V, duke of Aquitaine (993–1030), whose winter nights were passed in reading the books of his library; Edwige, niece of Otto the Great; and Mathilde, countess of Tuscany. The tempo of progress increased. The thirteenth century produced several enlightened monarchs, capable of playing cultural rôles of significance: Louis IX of France, Frederick Hohenstaufen (Frederick II) and Alfonso X of Castile; and at the same time, the number of nobles who possessed a quite extensive culture but knew no Latin was increasing.

In western Europe as in the east, towns present a thoroughly different picture. We have seen that Italy, the most urbanized country in the west,

was an exception to the low level of literacy among laymen; to a smaller extent, all other urbanized regions witnessed a rapid extension of elementary education. The warning that 'a merchant must never tire of handling the pen' recurs in Italian sources as a leit-motif and the literacy of merchants spread to the noblemen who also lived in towns. As for higher education, it was far from exceptional for an Italian merchant to attend law or medical schools and most merchants had at least a smattering of Latin beside the vernacular. Again, these phenomena also occurred in some other urbanized regions. Very often, the theoretical aspect of education was neglected in favour of practical studies. But from the development of accounting and commercial correspondence, and the increasing complexity of business activity, we can infer an adequate mastery of writing, language, and calculation.

Scholasticism. Historians have frequently been severe in their verdicts on thirteenth-century university culture. What has struck them has been the mechanical nature of the approach, its monotony and artificiality and the verbalism that was the other side of the dialectical medal. But it is wrong to base a judgment of this 'scholasticism' on its decadent aspects. Historically, it was of undeniable importance: by it, naïve and unschooled minds were enabled to assimilate the vast classical heritage suddenly revealed to them and, armed with the strict habits of reasoning it inculcated, to work creatively in their turn. Moreover, twentieth-century logicians have in general paid greater tribute both to the logic of Aristotle and to the work of medieval dialecticians in the analysis and formulation of the logical structure of Latin in its scientific usage. In such a perspective, the scholastic method is seen as having ministered fittingly to the needs of the period in which it evolved, and contributed to the intellectual advances that were to lead to its being superseded.

NOTES

1. Nevertheless, we must also keep in mind that in the Middle Ages, to a still greater extent than today, information and instruction were transmitted through many channels beside formal schools. Family and folk-lore passed from the elder to the younger; professional skills, together with bits of elementary education, were taught by masters to apprentices, usually in the workshop but sometimes in professional schools of some distinction (ranging from grammar courses 'for the use of merchants' to higher training in notarial art and eloquence); every pulpit, market place, or crossroads offered opportunities for a keen listener to learn from the readings, travels, and practical experience of others. To quote only one remarkable instance, the progress of geography and map-making in the Middle Ages was almost entirely achieved without formal schools. (R. Lopez.)
2. We must not exaggerate the influence of the higher Byzantine culture. Though the general level was undoubtedly higher than in the west (up to the eleventh century at least), some of the highest Byzantine officials were illiterate, women had hardly any schooling. As for the Slav countries which were subjected early to Byzantine influence, literacy was at first limited to a very small minority. (R. Lopez.)
3. While listing contradictory statements, however, Abelard did not suggest a specific solution of the conflict. This step was first taken not in Paris and in theology, but in Bologna and in canon law: the monk Gratian, in his *Concordance of Discordant Canons*, provided both a list of conflicting authorities and a solution of the problem. Soon the same method was applied to theology. (R. Lopez.)

